

PSYCHOLOGICAL ABSTRACTS

Vol. XI, No. 8

AUGUST, 1937

GENERAL

(incl. Statistics)

3500. Adams, D. K. Note on method. *Psychol. Rev.*, 1937, 44, 212-218.—The author suggests that if Hull's criticisms of current theoretical formulations (on the ground of their lack of clarity and explicitness in definitions and postulates) were applied to his own model system, it would be found wanting, because of the large number and obscurity of the undefined notions used in its postulates. His assumptions regarding the process by which a theory is confirmed or denied in terms of the empirical verification of deductions therefrom are considered confused. The idea of a "miniature system" is objected to as meaningless and self-contradictory in an empirical science.—A. G. Bills (Chicago).

3501. Anastasi, A. Differential psychology: individual and group differences in behavior. New York: Macmillan, 1937. Pp. 615. \$2.75.—The author regards differential psychology as a mode of approach to the study of behavior rather than as a separate field of the science. The present work is a co-ordinated view of the subject, prepared for the college student. Successive chapters deal with the following topics: history, nature and extent of individual differences, heredity and environment, family resemblances, special family relationships (including twins), effects of training, mental growth, relationship between physical and mental traits, constitutional types, variation within the individual (trait variability), mental organization, the sub-normal individual, genius, sex differences, racial and cultural differences, urban and rural populations, and the individual as a member of multiple groups. Individual personality is most significantly determined by multiple group memberships. The multiplicity of overlapping groups allows for great variations in the combination of traits and so for wide individual differences. "Membership in many unlike groups frees the individual from the intellectual and other limitations of each group and makes possible the fullest development of 'individuality'."—W. S. Hunter (Brown).

3502. Barr, A. S., & Mills, C. N. A short method of calculating the standard error of the difference of the means of paired items. *J. exp. Educ.*, 1937, 5, 313-314.—This article exhibits a shorter method than is generally used for calculating the standard error of the difference between two means in the case of paired items. A mathematical validation of the method is also presented.—H. W. Karn (Pittsburgh).

3503. Bedell, A. J. Photography in ophthalmology. *Arch. Ophthalmol.*, Chicago, 1937, 17, 709-714.—Details are given of technique for photographing

external ocular conditions, fundi, and ocular movements.—M. R. Stoll (Mass. Eye & Ear Infirmary).

3504. Blankenship, A. B. Regression and standard error calculation from the normal equations. *J. exp. Educ.*, 1937, 5, 294-295.—In a recent article (*J. educ. Psychol.*, 1934, 25, 634-636), Bronfin and Newhall derive lengthy, involved formulae for the regression equation, regression coefficient, standard error of the regression coefficient, and standard error of estimate, all in terms of raw scores without the use of the correlation coefficient. These authors started with the well-known equations for the above in terms of reduced scores. The present report is devoted to a criticism of such a method of deriving the equations and a demonstration showing that it is more logical and simpler to start with the equation for a straight line.—H. W. Karn (Pittsburgh).

3505. Boll, M. Déterminisme, contingence et fatalité en psychologie. (Determinism, contingency, and fatality in psychology.) *Erkenntnis*, 1937, 6, 378-383.—The author claims that the attempts to reintroduce freedom of the will into psychology on the basis of the Bohr principle of indeterminateness or Heisenberg uncertainty relationship are unsound. A logical analysis of the meaning of determinism leads him to conclude: "Freedom of the will is the subjective aspect under which the necessity of certain facts and the determinism of natural laws present themselves spontaneously to us."—J. F. Brown (Kansas).

3506. Bonnardel, R. Calcul de la corrélation existant entre deux distributions de mesures à partir des décilages de ces distributions. (Computation of correlation in terms of deciles.) *Travail hum.*, 1937, 5, 89-93.—A formula is based on reducing the measures to deciles, then taking the midpoint of each decile times its frequency.—H. E. Burt (Ohio State).

3507. Butler, J. R. Human nature. New York: Greenberg, 1937. Pp. 192. \$1.00.—Reprint.—R. R. Willoughby (Brown).

3508. Conrad, H. S., & Krause, R. H. An extension of the Kelley-Wood and Kondo-Elderton tables of abscissae of the unit normal curve, for areas ($\frac{1}{2}\alpha$) between .4500 and .49999 99999. *J. exp. Educ.*, 1937, 5, 278-285.—A table is presented of the abscissae (values of x/σ) corresponding to areas under the unit normal curve. The areas of the table extend from $\frac{1}{2}\alpha = .4500$ through $\frac{1}{2}\alpha = .49999 99999$; the abscissae extend from 1.644854 σ through 6.3613 σ , respectively. For the most part, the values of x/σ are given to six decimals; but for the higher values of $\frac{1}{2}\alpha$ (beginning with .499991) only five decimals are given, and for the last few values of

$\frac{1}{2}\alpha$ only four decimals. The table is a convenient supplement to the Kelley-Wood and Kondo-Elderton tables. Both these tables proceed by a uniform interval of .001; this interval, though adequate for lower values of $\frac{1}{2}\alpha$, may for higher values be considered rather large, especially if one prefers to use the tables directly, without interpolation. Neither the Kelley-Wood nor the Kondo-Elderton tables extends beyond the area $\frac{1}{2}\alpha = .499$.—H. W. Karn (Pittsburgh).

3509. Davies, G. R., & Crowder, W. F. *Methods of statistical analysis*. New York: Wiley, 1937. Pp. 355. \$3.25.—R. R. Willoughby (Brown).

3510. Dent, J. Y. *The human machine*. New York: Knopf, 1937. Pp. vii + 294. \$2.50.—This book represents "an attempt at an objective description of human behavior." It includes a discussion of man's various environments, memory, habit, conflict, therapy, sleep and hypnosis, as well as an appendix devoted to a critical discussion of psychoanalysis.—S. Rosenzweig (Worcester State Hospital).

3511. Dunlap, J. W. *Combinative properties of correlation coefficients*. *J. exp. Educ.*, 1937, 5, 286-288.—The author presents a method for combining correlation coefficients when all the subgroup means, standard deviations and correlations are available.—H. W. Karn (Pittsburgh).

3512. Dwelshauvers, G. *L'activité du laboratoire de psychologie à l'Institut catholique de Paris*. (The work of the laboratory of psychology at the Catholic Institute of Paris.) *Rev. Phil., Paris*, 1936, 36, 1-17.—M. H. Piéron (Sorbonne).

3513. Edgerton, H. A. *A note on the computation of the correlation between two lengthened tests*. *J. exp. Educ.*, 1937, 5, 289.—The author shows how a previously published set of tables (Edgerton, H. A., and Toops, H. A., A table for predicting the validity and reliability coefficients of a test when lengthened, *J. educ. Res.*, 1928, 5, 225-234) may be used to solve the formula for estimating the correlation between m forms of test X and n forms of test Y , when the correlation between X and Y and the reliabilities of the two variables are known.—H. W. Karn (Pittsburgh).

3514. Ghiselli, E. E., & Kuznets, G. *Short-cut methods for calculating raw and corrected correlations between a composite variable and its components*. *J. educ. Psychol.*, 1937, 28, 237-240.—The short-cut methods described entail no assumptions other than those required by the use of the data and a few basic formulae now in general use.—A. W. Melton (Missouri).

3515. Hailperin, T. *Foundations of probability in mathematical logic*. *Phil. Sci.*, 1937, 4, 125-150.—Characteristically propositions can be analyzed into component ones and these further analyzed into more elemental ones. The truth possibilities in any proposition are found by forming all possible pair-combinations of the truth-values in its component propositions. The probability of a proposition being true is the ratio of the number of T truth-values to the total number of values in its set of truth-values;

the probability of a proposition being false is the ratio of the number of F's to the total number of values. The author treats at length different classes of propositions, showing for them the possible combinations and their consequent probabilities.—C. C. Peters (Pennsylvania State).

3516. Heilman, J. D. *The k and g methods of interpreting the coefficient of correlation*. *J. educ. Psychol.*, 1937, 28, 232-236.—"Because the k method of interpreting a coefficient of correlation regards a best guess as a zero relationship it tends to neglect that part of the relationship which lies between a chance and a best guess relationship. However g or $\sqrt{(1 - r^2)}/2$ expresses a relation which includes the part neglected by k . g , or more precisely $1 - k$, represents the relationship which exists exclusive of that due to chance." When a best guess relationship between two series of scores is regarded as zero, then k is the percentage of disagreement and $1 - k$ is the percentage of agreement between the two series, but when a mere chance relationship between two series is regarded as zero then g is the percentage of disagreement and $1 - g$ is the percentage of agreement between the two series.—A. W. Melton (Missouri).

3517. Hull, C. L. *A comment on Dr. Adams' note on method*. *Psychol. Rev.*, 1937, 44, 219-221.—A reply to the criticisms presented in Adams' article just preceding. The author hopes the controversy will not obscure his main thesis, viz., that social sciences could develop, on the basis of carefully defined postulates, verified deductive systems analogous to those of physical science.—A. G. Bills (Chicago).

3518. Jakobson, W. *Die naturwissenschaftliche und die geisteswissenschaftliche Psychologie*. (Natural science and mental science in psychology.) *Lódź: Neue Lodzer Zeitung*, 1937. Pp. 52.—R. R. Willoughby (Brown).

3519. Jastrow, J. *Chevreul as a psychologist*. *Sci. Mon.*, N. Y., 1937, 44, 487-496.—This great chemist of the nineteenth century made contributions to psychology as well. He investigated the physics and psychology of color. In regard to the latter he distinguished between simultaneous and successive contrast and realized that positive and negative after-images were responsible for the subjective effects. He played a significant part in the early inquiries into "table-turning" and the divining rod, and in offering scientific explanations thereof. Portrait.—O. P. Lester (Buffalo).

3520. Jelliffe, S. E. *William Alanson White*. *Ment. Hyg.*, N. Y., 1937, 21, 291-293.—A short biographical account of the life of the late William Alanson White, of Saint Elizabeth's Hospital, Washington, D. C.—P. Brand (Children's Village, N. Y.).

3521. Langdon-Brown, W. *The seventeenth Maudsley lecture: the biology of social life*. *J. ment. Sci.*, 1937, 83, 1-14.—In a broad philosophical treatment of man as a social animal the author

presents the biological laws, particularly those of social life, which have governed evolution. At the first stage tabus and fertility rites are more important than the individual; at the second individualities develop; and finally we reach the present dilemma of increasing individualism on the one hand, and on the other an increased demand for renunciation and cooperation to meet the needs of a more complexly integrated civilization. The acceptance of reality and cooperation among free individuals are suggested as the only solution.—*C. J. Herrick* (Pennsylvania).

3522. **Lecomte du Noüy, P.** *Biological time.* New York: Macmillan, 1937. Pp. 180. \$2.00.—Part I of this monograph discusses methods of approach to biological problems and compares them with those of physics and chemistry. Part II consists of a review of the author's quantitative researches on the cicatrization of wounds. An empirical formula for the rate of wound healing as a function of chronological age is developed. In addition tissue culture work is reviewed in terms of the quantitative relations of growth rate as a function of age of cultures. The curves relating cicatrization and the *in vitro* growth rates of cells as a function of age are similar. Part III deals, in terms of the preceding material, with time. The section begins with a discussion of physical time and points out the well-known limitations of Newtonian absolute time. The dependence of time on space and its essential relation to velocities as part of a four-dimensional continuum is emphasized. Physiological or individual time is then shown to vary with age as a function of chemical velocities as illustrated by cicatrization and tissue culture curves. To the old time appears to pass rapidly, since the solar time envelope is relatively constant while physiological rates are less and physiological times, proportional to reciprocal rates, faster. For example, for parents of 40 and a child of 10, one year for the child represents the same amount of physiological time as three years for the parents.—*H. Hoagland* (Clark).

3523. **Lewin, K.** *Carl Stumpf.* *Psychol. Rev.*, 1937, 44, 189-194.—Stumpf represented the transition of psychology from a philosophical discipline to an empirical science. As a pupil of Brentano, he found in his quasi-empirical philosophy a close relation with phenomenological psychology. He distinguished between sense data and psychophysical functions, considering only the latter fundamental. He was known for his study of tone, his views in the nativist-empiricist controversy, his interests in child and animal psychology, and the problem of will. Portrait.—*A. G. Bills* (Chicago).

3524. **Moore, T. V.** *The reduction of data showing non-linear regression for correlation by the ordinary product-moment formula; and the measurement of error due to curvilinear regression.* *J. educ. Psychol.*, 1937, 28, 205-214.—Since scales of measurement determine the lines of regression, and convenience is the major reason for adopting one scale of measurement rather than another, when regression lines depart significantly from linearity a

simple method, described by the author, may be used to change the original scale of measurement so as to attain linear regression. It is shown that in many cases this correction is superfluous because the error due to curvilinear regression is within the P.E. of the Pearson *r*.—*A. W. Melton* (Missouri).

3525. **Nadler, K.** *Idee und Wirklichkeit des Lebens bei C. G. Carus.* (Carus' philosophy of the idea and reality of life.) *Z. dtsh. Kulturphil.*, 1937, 3, 141-165.—Carus' philosophy is based on a peculiar symbolic concept—not in the sense of a transcendental direction toward an absolute other, but rather a medium between idea and phenomenon, idea and nature, idea and reality. The symbolic concept in itself unifies these opposites and at the same time is the spiritual means of their introduction into human thought. From this concept arises the peculiar spiritual organism of the "world of thought," which is the starting point of the realization of all cultural activity. The spiritual organic character and religious pathos of Carus' ideas contrast sharply with modern philosophies.—*P. L. Krieger* (Leipzig).

3526. **Ramón y Cajal, S.** *Recollections of my life.* (Trans. by E. Horne Craigie & Juan Cano.) Philadelphia: Univ. Pennsylvania Press, 1937. Pp. 649. \$5.00.—*R. R. Willoughby* (Brown).

3527. **Rosenzweig, S.** *Schools of psychology: a complementary pattern.* *Phil. Sci.*, 1937, 4, 96-106.—The author analyzes the doctrines of five contemporary schools of psychology and finds that each has a distinctive emphasis which overstates certain basic principles, that these schools are really complementary to one another rather than mutually exclusive, and that it takes a synthesis of what all of them have to do justice to the science of psychology. The schools treated are: structuralism, having as its characteristic problem or field of research sensation, and being conceptually allied with physics; Gestalt psychology, having as its characteristic problem perception; behaviorism, with learning as its characteristic problem; psychoanalysis, dealing chiefly with motivation, both it and behaviorism being conceptually allied with the biological sciences; and *geisteswissenschaftliche* or *verstehende Psychologie*, with character as its problem and conceptually allied with sociology. Each school also has its distinctive method. Thus it is "apparent that the several contemporary schools of psychology can be very plausibly arranged . . . to represent a continuum or hierarchy from the less to the more complex, each school having a characteristic problem, a special methodological position . . . and a preferential alliance with the other sciences."—*C. C. Peters* (Pennsylvania State).

3528. **Roslow, S.** *A chart to facilitate the computation of correlation ratios.* *J. exp. Educ.*, 1937, 5, 292-293.—The author points out that a regression is often curvilinear, but that because the procedure appears to be complicated the eta coefficients are often not obtained. In such an event the Pearson *r* does not present a true evaluation of the relationship. Because of this situation the present chart was

evolved to systematize the computation of the eta coefficients. The statistical steps, simplified and arranged in a methodical order, are outlined in the report. Copies of the chart on sheets 8½" by 11" may be purchased from the Psychological Corporation, 522 Fifth Avenue, New York City.—*H. W. Karn* (Pittsburgh).

3529. Rubin, E. *Bemerkungen über unser Wissen von anderen Menschen.* (Remarks on our knowledge of other men.) *Erkenntnis*, 1937, 6, 392-397.—An abstract of a lecture held before the II International Congress for the Unity of the Sciences, in which the author points out "that our picture of the consciousness of other men is not only, as was shown previously, much too incomplete, but that it is also falsified in that properties are smuggled in which could not be there."—*J. F. Brown* (Kansas).

3530. Scates, D. E. *How science measures.* *J. exp. Educ.*, 1937, 5, 296-312.—"Measurement is in many instances a highly complex process, and one which challenges the ingenuity of the scientist. The requirements of measurement in the abstract are few—a working concept of the character to be measured, a satisfactory representation of quantitative variations in this concept as possessed or exhibited by phenomena to be measured, and one or more reference quantities to afford a basis for comparison. In their applications, these requirements take varied form in response to a great variety of conditions and purposes in different areas of science. Ideally, we should, in all cases, have an independent scale for measuring; units that are mathematically derived, permanently fixed, and universally familiar; and a zero point that has been located on the scale; but these advantages cannot always be obtained. Lacking these desiderata, in many cases, science has found other ways of indexing quantitative variation, and, notwithstanding the great difficulties encountered in many fields in meeting . . . the primary requirements, science has continued to go steadily forward—ever measuring."—*H. W. Karn* (Pittsburgh).

3531. Simpson, B. R. *A pragmatist examines the discard of mechanistic psychology.* *Sci. Mon., N.Y.*, 1937, 44, 453-463.—A critique of mechanistic psychology, particularly as represented by the behavioristic school of Watson.—*O. P. Lester* (Buffalo).

3532. Subkov, A. A. [Ed.] *Memorial volume of selected works of I. Sechenov.* Moscow, Leningrad: Gosmedizdat, 1935. Pp. xxxvi + 489.—In this volume, issued at the time of the Fifteenth International Physiological Congress, are reprinted a selection of the works of Sechenov, with a brief biography and evaluation of his influence upon Russian physiology. His work constitutes the basis upon which the schools of Pavlov and Wedensky developed, but is very inadequately known in western countries. The third section of the volume contains four articles on problems of psychology which have never before been translated from the Russian (the reflexes of the brain, who must investigate the problems of psychology and how,

impressions and reality, the elements of thought). Originally published between 1860 and 1890, they outline a comprehensive objective, behavioristic system of psychology, in which behavior is treated as a mechanistic reflex function involving the higher brain centers. Reflexes may be innate or learned; learning is discussed in terms of association. By implication, contiguity is the most important principle of association, but the mechanism of learning is not a primary subject of discussion.—*D. G. Marquis* (Yale).

3533. Tolman, E. C. *An operational analysis of "demands."* *Erkenntnis*, 1937, 6, 383-392.—"Demands" are constructed intervening variables postulated between causal variables and final behavior. The author divides demands into primary appetite demands, primary aversion demands, and secondary demands. Procedures are suggested for the operational definition of each. *Psychological operationism* is quite possible and just as "physicalistic" as are reflex arcs and nerve currents. Introspection may enter in the form of "Protokollsatze" (Carnap). The author's present aim is to work out a system of psychology with the aid of the grosser forms of behavior of rats.—*J. F. Brown* (Kansas).

3534. Ushenko, A. P. *Negative prehension.* *J. Phil.*, 1937, 34, 263-267.—According to Whitehead's doctrine of "negative prehension," certain data are eliminated in the creative development of a given occasion. By this doctrine Whitehead avoids certain difficulties of traditional idealism. The author criticizes this doctrine, however, on the ground that the status of the eliminated datum is obscure. "A datum of negative prehension is eliminated from feeling and therefore is not felt; yet as a datum it must be given and therefore in some sense it must be felt." Whitehead actually makes a distinction between "initial data" and "objective data," but he does not clearly explain his meaning.—*D. V. McGarahan* (Harvard).

3535. [Various.] *[Problems of biology and medicine.]* Moscow-Leningrad: Gosizdat, 1935. Pp. 696.—In this jubilee volume, which is dedicated to Prof. Lina Stern of the Institute of Physiology of the Faculty of Medicine of Moscow, the following contributions are among those of especial interest to psychologists: Claparède on controversies concerning instinct and the value of the attitude which seeks to analyze instinctive behavior; H. Winterstein on the theory of nervous centers; W. R. Hess on critical reflections; M. and Mme. and Paul Chauchard on the study of nervous subordination; J. ten Cate on the role of the cortex in pupillary dilatation by acoustic stimulation; Jacques Ley on progressive alexia and agraphia; H. Flournoy on stereotyped anxiety dreams in agoraphobia; L. Lapique on the relations of chronaxy to the idea of Wedensky's "lability"; Mme. Lapique on isochronism in the motor nerve in the neck muscles of the turtle; H. Piéron on the reduction, with intensity, of the latency time of tendinous reflexes; L. Bouisset and C. Soula on the effects of psychic stimulation on the humoral

equilibrium of the plasma in the gastrectomized dog; S. Hecht and A. M. Chase on the study of anomalies encountered in the absorption spectrum of retinal purple.—(Courtesy *Année psychol.*)

3536. **Villey, G.** *Biologie et langage psychologique.* (Biology and psychological terminology.) *Rev. gén. Sci. pur. appl.*, 1937, **48**, 43-50.—The author takes up the question of the physical and the mental. He believes that, for the biologist, the problem is one of knowing what the psychological fact represents, in that the biologist must make use of psychological terminology when studying physiological phenomena. He discusses the idea of psychological language under the following heads: psychology and mathematics, psychiatry and psychological language, psychiatric semeiology and psychological language, mental affections and the idea of psychopathogenesis, physiology and physiological language, and the facts relative to sensory experience and to introspection. His conclusion is that just as the physicist must use the concept of size in mathematical terms to interpret the phenomena which he observes, just so the physiologist must use the concept of psychological activity to explain physiological phenomena, thus employing psychological terminology.—*M. H. Piéron* (Sorbonne).

3537. **Voss, H. A.** *A monograph for estimating the validity coefficient of a lengthened test.* *J. exp. Psychol.*, 1937, **5**, 290-291.—Knowing the validity and reliability of a test, it is possible to estimate the increase in validity due to lengthening the test by means of a variation of the Spearman-Brown prophecy formula. The formula, although reported in a number of forms, is algebraically equivalent to the following:

$$V_n = \frac{V_{12}}{\sqrt{1 - r_{11}} + r_{11}},$$

where V_n = the estimated validity coefficient; V_{12} = the correlation between the test and the criterion, or the average correlation between more than one form of the test and the criterion; r_{11} = the reliability coefficient or the average reliability coefficient; N = the number of times the test is lengthened or the number of tests added. The report shows by means of specific examples how, given the values of any three of the variables, the value of the fourth can be determined from the accompanying nomograph.—*H. W. Karn* (Pittsburgh).

3538. **Wright, W. D., & Nelson, J. H.** *A subjective photometer.* *J. sci. Instrum.*, 1935, **12**, 373-377.—The apparatus described is a binocular photometer which is the source of 2 symmetrical beams, each of which illuminates an area viewed by an eye; the areas are placed one above the other on the retina in order to avoid binocular fusion or rivalry of fields. The apparatus permits the comparison of the sensitivity of the two eyes and the examination of the action of certain factors acting upon one eye.—*M. G. Willoughby* (Brown).

3539. **Yerkes, R. M., & Stewart, N. L.** *Yale Laboratories of Primate Biology: scenes from the Southern Division at Orange Park, Florida.* (Silent film.) New York: Instructional Films, Inc., 30 Rockefeller Plaza, 1934. 1 reel, 335 ft., 16 mm., 10 min. \$2.50 rental per use-day; \$27.50 sale.—Produced by Yale Laboratories of Primate Biology. This film presents views of the buildings, grounds, laboratory arrangements, and chimpanzee colony of the Yale experiment station at Orange Park, Florida. Among the animal pictures are included some of Alpha, the first baby born in the Laboratories, and of Mona and her twin infants, which are the only chimpanzee twins on record. Typical scientific activities are represented.—*R. M. Yerkes* (Yale).

[See also abstracts 3844, 3872.]

NERVOUS SYSTEM

3540. **Adrian, E. D.** *L'activité électrique du cerveau humain.* (The electrical activity of the human brain.) *Presse méd.*, 1936, **44**, 129-131.—Just as in the case of the heart beat, where the region which becomes active in the muscle becomes the seat of the electric change, so there is found in the brain an activity which gives rise to pronounced and relatively simple electric changes which can be photographed. The new method employed makes possible the registration of certain cerebral activities in man and may in the future furnish the means for analyzing the electrical changes accompanying a train of thought.—*M. H. Piéron* (Sorbonne).

3541. **Audubert, R., & Lévy, R.** *Emission de rayonnement par l'excitation nerveuse.* (Emission of radiation by nervous excitation.) *C. R. Acad. Sci., Paris*, 1935, **200**, 1634-1636.—Using photoelectric meters, the authors have established that a sciatic nerve of a frog stimulated electrically or mechanically (the nerve alive and isolated) emits a radiation which is shown by an aluminum cell (sensitive to 10^{-8} - 10^{-10} erg-sec./cm²), the maximum sensitivity of which corresponds to .23-.24 μ . The radiation emitted would therefore have about that wave length; its intensity would be about 1000 to 10,000 photons per second per square centimeter.—(Courtesy *Année psychol.*)

3542. **Bard, P., & Rioch, D. McK.** *A study of four cats deprived of neocortex and additional portions of the forebrain.* *Johns Hopk. Hosp. Bull.*, 1937, **60**, 73-147.—In addition to the rage reaction, which had been previously noted in long-surviving decorticate animals, the authors observed patterns of fear and sexual excitement. The rage reaction, elicited by nociceptive stimuli, differed from the reaction of normal cats only in being undirected and stationary, and was identical with the sham rage of the acutely decorticated cat. In three cats a response similar to the normal expression of fear could be evoked by loud, high-pitched noises. The loud barking of an excited dog held just in front of a cat did not produce a fear response, but only crouching and retraction of the head. One cat

without neocortex entered spontaneously into heat and displayed typical feline oestral behavior. Detailed protocols of behavior and post-mortem histological studies of the brains are presented.—*D. G. Marquis* (Yale).

3543. **Bartley, S. H., O'Leary, J., & Bishop, G. H.** Modification by strychnine of response of the optic cortex. *Proc. Soc. exp. Biol., N. Y.*, 1937, 36, 248-250.—Stimulation of the optic nerve of the rabbit by single shock results in a sequence of potential changes recorded from the optic cortex lasting for $\frac{1}{2}$ second. Strychnine is shown to differentiate two sequences of potential, one consisting of an early diphasic component lasting about 20 ms., the other of a triphasic component lasting 200 ms. The latter is correlated with the normal spontaneous rhythm and is thought not to be the immediate correlate of vision. The former diphasic process is inferred to be the immediate visual correlate, increasing greatly during strychninization. Records from pairs of electrodes subtending different strata of the cortex indicate that the two processes take different routes, the "mass impulses" of the diphasic process discharging upward toward the surface of the white matter, those of the triphasic process downward to subcortical white matter.—*H. Peak* (Randolph-Macon).

3544. **Berger, H.** Über das Elektrenkephalogramm des Menschen. X. (On the human electroencephalogram. X.) *Arch. Psychiat. Nervenkr.*, 1935, 103, 444-454.—With respect to numerous published works on the cerebral electrical manifestations in man, the author discusses the role of the method, unipolar or bipolar, of picking up these manifestations. In the first case, in which trephine holes are used, one picks up variations of deeper and more localized origin than in the second. With the unipolar method Foerster and Altenburger have observed in trephines increases in amplitude of encephalograms under the action of sensory excitations, while with the bipolar method the author has always observed the opposite; his explanation of this is that the increase of activity of sensory origin is very localized and is accompanied by a decrease in other regions, the decrease predominating in the result picked up over a region sufficiently large by the bipolar method. The author does not accept the conclusion of Adrian and Matthews that the alpha waves arise from visual functioning in the occipital area; contrary to English authors, the author has found electro-encephalograms even in blind individuals. He repeated the study on 3 subjects who had been sightless for 15, 17, and 18 years; he found waves of a duration of 110σ to 120σ ; in a deaf-mute he found similar results.—(Courtesy *Année psychol.*)

3545. **Bremer, F.** Etude oscillographique des activités sensorielles du cortex cérébral. (An oscillographic study of the sensory activities of the cerebral cortex.) *C. R. Soc. Biol., Paris*, 1937, 124, 842-847.—The author studied the sensory activity of the cerebral cortex, using the "isolated brain" and the "isolated encephalon." Visual reactions derived

from the striated area are characterized by a phenomenon of strong accommodation depending upon the properties of the retinal receptors. On the contrary, however, the reaction of the auditory cortex to a sound stimulus which is continuous and maintained for several seconds is prolonged during the entire duration of the stimulus. This is indicated by a more or less marked acceleration of the spontaneous cortical waves.—*M. H. Piéron* (Sorbonne).

3546. **Bremer, F.** Différence d'action de la narcose étherique et du sommeil barbiturique sur les réactions sensorielles acoustiques du cortex cérébral. Signification de cette différence en ce qui concerne le mécanisme du sommeil. (The difference between the action of ether narcosis and barbituric sleep on the sensory auditory reactions of the cerebral cortex. The significance of this difference as regards the mechanism of sleep.) *C. R. Soc. Biol., Paris*, 1937, 124, 848-852.—These experiments demonstrate the fundamental differences existing between the functional alterations of the cortex in these two narcotic states. The ether narcosis weakens coordinately the components of the sensory reaction of the auditory cortex to rhythmical clapping, but permits the persistence during a long period of the response to a continuous whistling stimulus. Barbituric sleep, like natural sleep, is characterized by a diminution of the after-discharge of the reaction to clapping in contrast to the persistence and even the amplification of the primary reaction, and by an early disappearance of the reaction to a continuous whistling stimulus.—*M. H. Piéron* (Sorbonne).

3547. **Cannon, W. B., & Rosenblueth, A.** Autonomic neuro-effector systems. New York: Macmillan, 1937. Pp. 229. \$4.00.—The authors present a detailed account of the evidence bearing upon the chemical processes which occur between the nerve impulse and the effectors controlled by the autonomic nervous system. Two major types of substances are involved, one which mimics parasympathetic action and one which mimics sympathetic action, or acetylcholine and sympathin respectively. Suggestions are offered (pp. 55-56) on the significance of chemical mediation for the phenomena of the central nervous system. A bibliography of 344 references is given.—*W. S. Hunter* (Brown).

3548. **Coppée, G., & Kemp, E. H.** Les voies auditives au niveau de la moelle allongée (chat). Effets des anesthésiques. (Auditory pathways at the level of the medulla oblongata in the cat. Effects of anesthetics.) *C. R. Soc. Biol., Paris*, 1936, 122, 1297-1299.—The superior olivary complex, which is rather close to the respiratory center and in the seat of the second relay of acoustic pathways examined, showed the same sensitivity to anesthetics as did the respiratory center in that the response which was registered at the level of the corpora quadrigemina disappeared at the same time as the respiratory reflex itself. However, the cochlear nuclei, more external in location, offered a much greater resistance to the anesthetics studied.—*M. H. Piéron* (Sorbonne).

3549. Denier, A. **L'enregistrement de l'activité électrique de cerveau.** (The registration of electrical activity in the brain.) *Pr. méd.*, 1936, **44**, 1436.—The author gives results obtained from studies on action currents made with epileptic, psychasthenic, and parkinsonian patients.—*M. H. Piéron* (Sorbonne).

3550. D'Hollander, F., & Stoffels, J. **Nouveau procédé de localisation pour les recherches sur le cortex cérébral: le palliogramme.** (A new procedure of localization for researches on the cerebral cortex: the palliogram.) *J. belge Neurol. Psychiat.*, 1937, **37**, 1-24.—In different experimental studies with extirpation or localized excitation of the cerebral cortex there is much difficulty in comparing the various lesions and cortical stimulations. The authors suggest a method of taking brain sections and relating them to diagrams (palliograms), which allows more accurate investigation and precise cortical localization. The results of 44 thalamo-cortical experiments are discussed on this basis. An extensive bibliography is given.—*H. Sys* (Cornell).

3551. Dollken, —. **Mechanismen im Gehirn einseitig begabter Menschen.** (Brain mechanisms in persons with one-sided ability.) *Z. ges. Neurol. Psychiat.*, 1937, **157**, 323-357.—An organ which is above the average in function is usually above the average also in external form. Similarly, in persons endowed in any one direction, the brain always shows special morphological characteristics. These features have in themselves no immediate connection with psychic phenomena; they are only the accompaniments and forms of expression of mental processes. The problem of the origin and nature of the purely psychic cannot be solved through them.—*P. L. Krieger* (Leipzig).

3552. Durup, G., & Fessard, A. **L'électro-encéphalogramme de l'homme. Observations psychophysiologiques relatives à l'action des stimuli visuels et auditifs.** (The electroencephalogram in man. Psychophysiological observations relative to the action of visual and auditory stimuli.) *Année psychol.*, 1936, **36**, 1-32.—The authors discuss the various conditions related to the appearance and disappearance of the Berger alpha rhythm. Latent times of disappearance to sound stimulations are longer than those to light, and the latency of reactions to short light stimulations decreases as the brilliance and area of stimulus increases. Since the variability and duration of latency are similar to those obtained in voluntary reactions, and since the reaction may be affected by the subject's mental attitude, the authors suggest that the disappearance of the alpha rhythm is due to a central elaboration. The observation that the frequency of the alpha oscillation is greater upon appearance of the alpha rhythm lends support to the hypothesis that the disappearance is a result of the acceleration of frequencies not uniformly distributed, leading to desynchronization.—*E. T. Raney* (Brown).

3553. Fessard, A. **Pulsations axonique de basse fréquence déclenchées par l'application d'une tension**

constante du nerf myélinisé. (Axonic pulsations of low frequency released by the application of a constant tension on the myelinated nerve.) *C. R. Soc. Biol., Paris*, 1935, **119**, 1355-1358.—When one obtains, on a myelinated nerve of a frog, the response of some fibers only to the action of a constant tension, a series of action potentials is obtained, the frequency of which ranges from 12 to 160 according to the value of the tension representing an intensity of excitation. The curve, which resembles a logarithmic curve, has the same form as in the researches of Jasper and Monnier on the non-myelinated nerve of the crab.—(Courtesy *Année psychol.*)

3554. Foerster, O. **The motor cortex in man in the light of Hughlings Jackson's doctrines.** *Brain*, 1936, **59**, 135-159.—A lecture delivered before the section of neurology of the Royal Society of Medicine, London, summarizing the modern clinical and experimental knowledge of the functions of the motor cortex, and the syndromes resulting from pathological destruction of its component parts.—*D. G. Marquis* (Yale).

3555. Foerster, O., & Altenburger, H. **Elektrobiologische Vorgänge an der menschlichen Hirnrinde.** (Electrobiological processes in the cerebral cortex of man.) *Dtsch. Z. Nervenheilk.*, 1935, **135**, 277-288.—In 30 patients, during the course of neurosurgical operations in which the brain was laid bare, studies were made of electrical waves picked up by the unipolar method in the different regions of the cortex. On the granular frontal zone (area 6) during repose (the subject on the operating table and under local anesthesia), the observers noted Berger rhythms of about 10 per second and others which were smaller and more frequent, besides slow oscillations of potential. A cutaneous excitation and an intermittent illumination were without effect, as were also mental calculations and active movements. In spite of great individual differences in the electrical manifestations, the principal facts remained constant. In the same patient, on the central anterior convolution on a level with the motor area of the arm, the encephalogram was very similar; on a level with the motor area of the leg (the patient, operated on for epilepsy, had shown symptoms of clonic shock), there appeared a series of oscillations of potential of large amplitude. On the temporal region, with encephalograms still similar, the hearing of a song set up an increase in amplitude in the Berger rhythms. On the cerebellum, the tightening of the fist set up a great increase in oscillations of potential, which did not show any change in rhythm.—(Courtesy *Année psychol.*)

3556. Gibbs, F. A., Lennox, W. G., & Gibbs, E. L. **The electro-encephalogram in diagnosis and in localization of epileptic seizures.** *Arch. Neurol. Psychiat.*, Chicago, 1936, **36**, 1225-1235.—A characteristic electro-encephalogram, with a 3-per-second wave and spike pattern, is found to be pathognomonic of petit mal epilepsy. The frontal lobe is more intimately connected with the source of the pathological electrical activity than any other cortical

area accessible from the surface of the head.—D. G. Marquis (Yale).

3557. Gils, W. Ändert die intrazentrale Hemmung die Erregbarkeit des motorischen Nervenstammes? (Does central inhibition change the irritability of a motor nerve trunk?) *Z. Biol.*, 1936, **97**, 459-464.—The irritability of the frog's sciatic nerve was measured by the chronaxy method before and during a central reflex inhibition produced by simultaneous stimulation of two sensory roots of the nerve. In 7 clear-cut experiments, decreased irritability of the motor fibers was found during central stimulation. In 13 other experiments, changes in irritability were either absent or insignificant, a result which Gils ascribes to injury of the preparation.—P. L. Krieger (Leipzig).

3558. Goldstein, K. The significance of the frontal lobes for mental performance. *J. Neurol. Psychopath.*, 1936, **17**, 27-40.—Summarizing his extensive clinical experience, the author concludes that the disturbances following frontal lobe lesion are found in all fields of mental performance, and that the disturbance of no one field can be regarded as the basic cause of the other disturbances. The characteristic defect can best be described as a lack of active (abstract) behavior, an inability of the patient to give himself an account of acting or thinking, and an inability to make a separation between the ego and the world. Concrete (passive) behavior which is determined directly by given objects in the environment may be very well preserved. "The patient's deficiency may be designated as a disintegration of a higher, more complicated process, which is rather determined by the whole organism, to a less complicated, lower one, determined more by the stimuli of the outer world."—D. G. Marquis (Yale).

3559. Golla, L. L. The nervous system and the organic whole. *Proc. R. Soc. Med.*, 1935, **29**, 109-118.—(Not seen).

3560. Green, H. D., & Hoff, E. C. Effects of faradic stimulation of the cerebral cortex on limb and renal volumes in the cat and monkey. *Amer. J. Physiol.*, 1937, **118**, 641-658.—Motor and premotor areas in cats and monkeys were stimulated under ether and under dial. Limb plethysmograph, blood pressure and renal volume records were made. Evidence was obtained that limb volume may be independent of blood pressure changes, and that the greater part of the volume change is due to alterations in the muscle. Forearm volume is therefore more significant than finger volume. It is concluded that nerve pathways from the cortex which result in decreasing the blood supply to the abdominal viscera cause increased supply to parts activated by efferent pathways from the same areas. This accounts for the lack of change of blood pressure which was found. It is suggested that this mechanism furnishes the increase in blood supply required by the activated muscles.—T. W. Forbes (Harvard Bureau of Traffic Research).

3561. Keller, A. D., Roy, R. S., & Chase, W. P. Extirpation of the neocerebellar cortex without eliciting so-called cerebellar signs. *Amer. J. Physiol.*, 1937, **118**, 720-733.—Disturbance in muscular movement following neocerebellar deficit has been interpreted by many as due to neocerebellar deficit. Certain extirpation experiments suggest that the cerebellum acts as a whole, while others, together with clinical results, suggest differentiation between the lateral lobes and the vermis. The cerebellum of dogs and monkeys was exposed, and after the cauterization of surface blood vessels each lobule was separated along the bordering sulci and pinched free at the base with fine blunt forceps. "Partial and complete ablations of the middle lobe of the cerebellum . . . as well as underlying lateral cerebellar nuclei were successfully performed . . . without eliciting detectable dysfunction." It is suggested that the neocerebellum is not essential for any of the functions attributed to the cerebellum. Preliminary experiments indicate that the whole cerebellar cortex is silent as to precipitation of "cerebellar signs." It is a question whether the quick postoperative clearance of signs represents immediate compensation or recovery from derangement of neighboring structures. Therefore in any case the brain stem is suggested as the location of the actual structures responsible for clinical cerebellar signs (with the exception of postural deficits from the degeneration of cerebello-bulbar tracts).—T. W. Forbes (Harvard Bureau of Traffic Research).

3562. Kemp, E. H., & Coppée, G. Les voies auditives au niveau de la moelle allongée (chat). Distribution systématique des voies nerveuses acoustiques dans le mésencéphale. (Auditory pathways at the level of the medulla oblongata in the cat. Systematic distribution of auditory nerve pathways in the midbrain.) *C. R. Soc. Biol., Paris*, 1936, **122**, 1299-1301.—The fibers corresponding to the third turn of the cochlea (reproducing low tones) probably end in the postero-inferior pole, while the fibers corresponding to the second turn (high tones) probably end in the median region of the corpora quadrigemina.—M. H. Piéron (Sorbonne).

3563. Kemp, E. H., Coppée, G., & Robinson, E. Les voies auditives au niveau de la moelle allongée (chat). Mise en évidence des synapses nerveuses. (Auditory pathways at the level of the medulla oblongata in the cat. Demonstration of nerve synapses.) *C. R. Soc. Biol., Paris*, 1936, **122**, 1294-1297.—The authors believe that a single synapse is present between the auditory nerve and the superior olivary complex; this synapse is to be found at the level of the cochlear nuclei or at its accessory nucleus. Two synapses are interposed between the auditory nerve and the lower corpora quadrigemina. The second synapse is likely to be found at the level of the superior olivary complex.—M. H. Piéron (Sorbonne).

3564. Lehmann, J. E. The effect of changes in pH on the action of mammalian A nerve fibers. *Amer. J. Physiol.*, 1937, **118**, 600-612.—Nerves in oxygen

in an incubator have shown variable after-potentials and sometimes a spontaneous discharge. This suggests an effect from the medium, and the most probable change to be expected would be in pH. A nerve chamber was arranged to immerse the nerve in saline or in Ringer of a certain pH, obtained by equilibration with a known O_2 - CO_2 mixture. Recording was monophasic, with apparatus described by Gasser and Grundfest. Spike height was decreased with higher pH values, conduction rate was increased or else unchanged, and threshold was decreased. Above pH 7.6 or 7.7 spontaneous or continuous discharge occurred, and at pH 8.0 the after-potential became rhythmic. In general, changes were reversible. It is pointed out that at pH 7.4 there is a close correspondence to curves obtained in other studies from nerves in the body, and it is suggested that alkaline nerves perhaps correspond to nerves under tetany, e.g. in hyperventilation.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

3565. *Lehmann, J. E.* The effect of changes in the potassium-calcium balance on the action of mammalian A nerve fibers. *Amer. J. Physiol.*, 1937, 118, 613-619.—Exclusion of $CaCl_2$ from the Ringer at pH 7.4 gave results similar to those in ordinary Ringer with high pH (lowered threshold, spontaneous discharge, and rhythmic after-potential). The effect was therefore similar to that of alkalinity, while exclusion of potassium gave results of an opposite type, similar to those of increased acidity. Relationships to nerves in situ are discussed in the preceding paper.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

3566. *Lemere, F.* The significance of individual differences in the Berger rhythm. *Brain*, 1936, 59, 366-375.—Several records on each of 26 normal adults showed that there was some consistency in the type of alpha waves produced by a given subject. Records of manic-depressive patients compared with schizophrenic patients suggest that there is some relation between Berger rhythm and affective state.—*D. G. Marquis* (Yale).

3567. *Levin, P. M., & Langworthy, O. R.* Extra-pyramidal control of micturition: the effects of lesions of the tegmentum of the mid-brain. *Amer. J. Physiol.*, 1937, 118, 483-491.—17 female cats were operated under nembutal and vesical records made by means of a previously described air-water system. The mid-brain was exposed and a transverse lesion made across the tegmentum with a fine knife. The cerebral peduncles were spared. During the first few postoperative days there was a question whether the animals were conscious; there was skeletal inactivity, flexion of extremities and decreased resistance to manipulation, constricted pupils and frequent and forceful micturition. In the chronic condition after a week the animals moved, there was a suggestion of the lead-pipe rigidity of catalepsy, the pupils widened, vesical capacity decreased, and hyper-excitability was present, but spontaneous contraction disappeared. The disturbances were different from those due to lesions of the motor cortex and its projection fibers.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

3568. *Masserman, J. H.* Effects of sodium amytal and other drugs on the reactivity of the hypothalamus of the cat. *Arch. Neurol. Psychiat.*, Chicago, 1937, 37, 617-628.—Minimal faradic stimulation of certain areas of the anterior portion of the hypothalamus of unanesthetized cats produces a number of motor and sympathetic reactions which resemble those associated with the emotions of rage and fear. Systemic injection of sodium amytal (20 to 50 mg. per kilogram of body weight) diminishes or abolishes this reaction, although the skeletal neuromuscular responses to excitation of the motor cortex remain apparently unaffected. This evidence tends to confirm the pharmacological hypothesis that the barbiturates act principally on the hypothalamus.—*D. G. Marquis* (Yale).

3569. *Morsier, G. de, & Mozer, J. J.* Agénésie complète de la commissure calleuse et troubles du développement de l'hémisphère gauche avec hémiparésie droite et intégrité mentale. (Complete agenesis of the callosal commissure and disturbances of the development of the left hemisphere with right hemiparesis and mental integrity.) *Schweiz. Arch. Neurol. Psychiat.*, 1935, 35, 64-95; 317-352.—The known cases of agenesis of the corpus callosum are numerous; the coexistence of this agenesis with mental integrity is very rare. The authors have been able to discover only 10 such cases, which they describe in detail. In a case which they themselves observed autopsy revealed arrested development of the left hemisphere and complete agenesis of the corpus callosum.—(Courtesy *Année psychol.*)

3570. *Mourgue, R.* La conception de la neurologie dans l'oeuvre de Kurt Goldstein. (The conception of neurology in the work of Kurt Goldstein.) *Encéphale*, 1937, 32, 32-56.—The author discusses the philosophy of Kurt Goldstein, which consists solely in the generalization of carefully observed facts. The principal theses in his philosophy are: the application of the organismic point of view to the nervous system, and the complete repudiation as an interpretive factor of anything which cannot be expressed in terms of reactions (the world of instincts).—*M. H. Piéron* (Sorbonne).

3571. *Nicholson, H. C., & Brezin, D.* Alteration of the actions of various respiratory modifiers by local cooling of the floor of the fourth ventricle. *Amer. J. Physiol.*, 1937, 118, 441-451.—During apneustic respiration from severe cooling of the floor of the fourth ventricle in the region of the calamus scriptorius, blocking of the vagi was without effect. Inflation and deflation of the lungs were also without effect. It is suggested that interruption of inspiration in normal breathing may be produced by the rise of frequency of impulses arriving at some internuncial neurone (as suggested by Forbes for reciprocal innervation) and that it does not seem necessary to assume a special center for interruption of respiration.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

3572. *Parker, G. H., & Pumphrey, S. M.* The relation of nerves to chromatophore pulsations. *J.*

cell. comp. *Physiol.*, 1936, 7, 325-331.—The right anterior autonomic nerve of *Fundulus* was severed and gave a dark coloration in the denervated area, and the stimulation methods of Spaeth and of Smith were used to excite pulsations in the melanophores. Such movements probably depend on the direct effects of the activating agents on the melanophores. A pulsation never extends to the full limits of normal activity, but reaches at most from full pigment concentration to only a part of pigment dispersion.—O. W. Richards (Spencer Lens Company).

3573. Prosser, C. L. Impulses in the segmental nerves of the earthworm. *J. exp. Biol.*, 1935, 12, 95-104.—In the segmental nerves of *Lumbricus* large repetitive impulses were observed in response to stimulation of proprioceptors, smaller impulses in response to epithelial stimulation by HCl, NaOH, and NaCl, and still smaller ones in response to photic stimulation. Stimulation of one segmental nerve induced contraction of that segment and weak contraction of the two adjacent segments. Peristaltic waves were often conducted, but greatly impeded, after one ganglion was removed, and were not conducted after two or more ganglia were removed. It is concluded that sensory and motor impulses are conducted in separate branching fibers rather than in a continuous nerve net.—C. L. Prosser (Clark).

3574. Rush, H. P. The visceral nervous system and its relation to the endocrines. *J. Amer. med. Ass.*, 1937, 108, 258-260.—The author presents a summary of the experimental and clinical evidence to support his thesis that "vegetative regulation is the result of a most complicated interdependence between the endocrine organs and the visceral nervous system." Centers in the diencephalon probably mediate an important part of the interrelationship.—D. J. Ingle (Mayo Foundation).

3575. Smith, J. R. Electroencephalogram during infancy and childhood. *Proc. Soc. exp. Biol.*, N. Y., 1937, 36, 384-386.—Electroencephalograms of 58 normal children from 1 day to 17 years of age confirm Lindsley's findings (*Science*, 1936, 84, 354) and in addition reveal the presence within a few days after birth of well defined periodic waves at about 5 per second, when one or more electrodes are placed over the motor region and the child is asleep.—H. Peak (Randolph-Macon).

3576. Spiegel, E. A. Comparative study of the thalamic, cerebral and cerebellar potentials. *Amer. J. Physiol.*, 1937, 118, 569-579.—Either bipolar Adrian-Bronk electrodes or a single AgCl wire together with a plate in the roof of the frontal sinus were used. A multiple electrode with three needles was employed to study the effect of the distance between electrodes. It was found that the electrothalamogram was similar to the one from the cortex, involving both alpha and beta waves. Records from different thalamic nuclei showed differences, but there was no consistent pattern for a given nucleus. An increase in distance between electrodes increased the recorded potential.—T. W. Forbes (Harvard Bureau of Traffic Research).

3577. Tower, S. S. Extrapyramidal action from the cat's cerebral cortex: motor and inhibitory. *Brain*, 1936, 59, 408-444.—Responses to stimulation of the motor cortex are mediated by two major mechanisms: (1) the corticospinal tract and the homologous tracts to the brain stem which act directly or through an internuncial neuron on the final common path to the effectors; and (2) the extrapyramidal tracts which act indirectly by facilitating the activity of lower brain-stem mechanisms in which the form of the activity is determined. The second mechanism is revealed after section of the pyramidal tracts in the medulla. The inhibitory function of the cortex is dominantly extrapyramidal and is the most widespread activity demonstrable in the cortex, possibly representing a general cortical function.—D. G. Marquis (Yale).

3578. Weiss, P. Motor effects of sensory nerves experimentally connected with muscles. *Anat. Rec.*, 1934, 60, 437-448.—The toad was the experimental animal used in this study. After section of the dorsal roots, separating the ganglion from the cord, and after degeneration of the motor fibers by section of the ventral roots, the nerve, exclusively sensory, was sectioned and inserted into the denervated and transplanted gastrocnemius muscle. There were 36 operated animals given induction shocks on the nerve (at 15-18 mm. from the muscle and even on the ganglion). In two cases at the end of 10 to 15 weeks there was a rapid contraction of the entire muscle; in some others there was a local contraction limited to the region of nerve entry. After section the excitation becomes without effect.—M. G. Willoughby (Brown).

3579. Zotterman, Y. Action potentials in the glossopharyngeal nerve and in the chorda tympani. *Skand. Arch. Physiol.*, 1935, 72, 73-77.—When the tongue of a cat is touched with an instrument which has been soaked in a solution that can be tasted, large action potentials are obtained in the glossopharyngeal nerve. These cease abruptly as soon as the instrument is withdrawn; at this moment one notes some potentials which are five times smaller, with a slow and diminishing frequency. The initial frequency depends upon the concentration of the solution, indicating that the stimulus impinges on the gustatory receptors. A large number of fibers intervene, in such a way that the frequency, on the entire nerve, may be raised to 2000 per second. The effective solutions have been those of salt (NaCl), bitter (quinine), acid (acetic acid), and in one case sugar (saccharose). With the instrument soaked in pure water, only the large potentials are obtained in the glossopharyngeal nerve. In the chorda tympani only small gustatory potentials have been observed; most of the fibers here are small (less than 4 μ in diameter) and some only average (up to 8 μ); while in the glossopharyngeal there are large fibers (up to 13 μ), although they are not numerous. With warm or cold water a series of action potentials is obtained with diminishing frequency, of amplitude equal to

that of the potentials of gustatory origin.—*M. G. Willoughby* (Brown).

[See also abstracts 3526, 3548, 3591, 3608, 3633, 3636, 3638, 3671, 3673, 3689, 3701, 3725, 3733, 3748, 3775.]

RECEPTIVE AND PERCEPTUAL PROCESSES

3580. *Bachelard, G. La dialectique de la durée.* (The dialectics of duration.) Paris: Boivin, 1936. Pp. 170. 15 fr.—*M. H. Piéron* (Sorbonne).

3581. *Baumgarten, F. Les illusions de l'observateur sur la direction et la vitesse de deux trains se croisant ou se suivant.* (Illusions of an observer of the direction and speed of a train meeting or following another train.) *Année psychol.*, 1936, 36, 162-166.—The author describes the optical illusions of movement which occur when one train is following or passing another, and the apparent relative movement of the landscape. The illusions described are dependent upon the relative speed and directions of the trains, and upon the structure and configuration of the landscape.—*E. T. Raney* (Brown).

3582. *Blondel, A. L'éclairage jaune.* (Yellow illumination.) *Alm. Citroën*, 1935, 48-52.—The author reviews the facts favorable to yellow illumination. Basing his discussion on the differences in sensitivity of the retinal elements, he attempts to show that yellow must dazzle less than white.—(Courtesy *Année psychol.*)

3583. *Blumenfeld, W. The relationship between the optical and haptic construction of space.* *Acta Psychol.*, Hague, 1936, 2, 125-174.—The structures of visual and tactual space were compared, not only from a descriptive point of view but also from the standpoint of the laws governing both types of perception. Observations were made to show that, through concrete conditioning of sensory-motor processes and organs, the spatial arrangement of objects can reveal a varied phenomenal shape. Laws applying to visual space can be applied as well to the phenomenal characteristics of tactual space, a fact which is supported by the observations reported and by numerous other normal and pathological phenomena of perception. From the comparisons made it is concluded that common motor and dynamic factors play a role in perception that is important in the construction of identity in visual and tactual space. Human conduct depends upon things and processes in space, but the phenomenal characteristics of space derive from action.—*K. U. Smith* (Rochester).

3584. *Bujas, Z. L'établissement de la sensation du goût électrique en fonction de la durée d'excitation.* (The establishment of the electric sensation of taste as a function of the duration of the stimulus.) *C. R. Soc. Biol., Paris*, 1936, 122, 1260-1262.—The time during which the action of a stimulus takes place influences not only the threshold level but also the apparent intensity of the sensation at supraliminal levels. The author sought to find what must be the intensity of a protracted gustatory

stimulus such that it would appear equal to another stimulus of constant intensity but of varying duration. The method of successive comparisons was used. With this method the level of stable equilibrium for taste was never raised and it was most frequently attained after an interval, whatever might be the intensity of the stimulus.—*M. H. Piéron* (Sorbonne).

3585. *Bujas, Z., & Chweitzer, A. Recherches sur le goût électrique provoqué par les courants à établissement progressif.* (Studies on electric taste as elicited by currents set up gradually.) *Année psychol.*, 1936, 36, 137-146.—Electrical stimulation may arouse sensations of taste at the anode (acid) and at the cathode (alkaline of a complex character) on making contact. On breaking contact, however, there is no sensation at the cathode. Curves of liminal intensity as a function of time vary inversely within certain limits for the cathode and directly for the anode. For the cathode it varies depending upon whether contact was made abruptly or with gradually increasing intensity. The discontinuous results obtained for the cathode are thought to be due to a double mechanism, a direct stimulation of the nerve endings when abrupt contact is made (giving a bitter taste) and an excitation due to a chemical modification of the saliva and intercellular liquids. It is assumed that the anode excitation is due to electrolysis of the saliva and intracellular liquids. A hypothesis by H. Piéron is presented to explain the differences between the two chemical reactions.—*E. T. Raney* (Brown).

3586. *Canella, M. F. Quelques observations sur le comportement visuel des poissons à fovea.* (Some observations on the visual behavior of foveate fish.) *C. R. Soc. Biol., Paris*, 1937, 124, 405-407.—Even in so-called foveate fish, blinding in one eye, while causing a reduction in the total visual field, does not decrease the clearness and acuity of visual perception, nor does it change the accurate evaluation of the third dimension. These fish have, indeed, eyes which are very close together and consequently enjoy a very restricted binocular field of vision in comparison with fish which have eyes which are more or less typically lateral.—*M. H. Piéron* (Sorbonne).

3587. *Canella, M. F. Influence des excitations lumineuses sur la position d'équilibre des poissons.* (The influence of light stimuli on the equilibrium position in fish.) *C. R. Soc. Biol., Paris*, 1937, 124, 543-544.—A fish which is blind in one eye exhibits a more or less pronounced inclination towards the opposite side according to the intensity of lighting in the environment. This inclination ceases when the other eye is blinded. The author believes that when the light stimuli are suppressed on one side, a unilateral modification of the muscle tonus is brought about which results in a change in the equilibrium of the fish.—*M. H. Piéron* (Sorbonne).

3588. *Cornelli, G. Ricerche sperimentali sulla influenza dei suoni e dei rumori sull'attività umana.* (Experimental studies relative to the influence of

sounds and noises on human activity.) *Organis. sci. Lavoro*, 1935, 10, No. 9. Pp. 14.—Contrary to the general opinion on the deleterious effect of noises, the author found an almost constant increase in accomplishment in 5 subjects who were, during the course of 2 different tasks (copying symbols and adding numbers) presented with (1) a muffled noise, (2) a pure sound, and (3) bits of music. Assuming that 100 is the average accomplishment score of subjects during silence, it became (for the 2 tasks): 114.6 and 108 with the noise, 118.3 and 110.6 with the pure sound, 116.5 and 121.3 with the music. Accuracy also increased for the additions, and was not modified for the copying of symbols. If the work was done for 40' in silence preceded by 10' with noise, accomplishment was increased; on the other hand, if the work was done for 10' with noise, preceded by 10' in silence, accomplishment was diminished.—(Courtesy *Année psychol.*)

3589. Denis, J. Quelques remarques sur le sens du toucher et de la vue chez les araignées sédentaires. (Some remarks on the senses of touch and vision in sedentary spiders.) *Bull. Soc. ent. Fr.*, 1936, 41, 260-263.—The author believes that these spiders are endowed with a fixed amount of ability with which to adjust themselves to their environment. The principal means at their disposal are vision and touch. If one of these senses is increased in acuity, the other suffers a decline to the same extent.—*M. H. Piéron* (Sorbonne).

3590. Elsberg, C. A. The newer aspects of olfactory physiology and their diagnostic applications. *Arch. Neurol. Psychiat.*, Chicago, 1937, 37, 223-236.—A summary of the psychophysiological and clinical results of the study of olfactory sensitivity by the procedure of injecting odorous gases into the nasal cavity under conditions of controlled pressure, volume, and concentration.—*D. G. Marquis* (Yale).

3591. Elsberg, C. A., & Spotnitz, H. Some neural components of the visual response. *Amer. J. Physiol.*, 1937, 118, 792-797.—The test objects were small white squares 1 mm. to 18 mm. on a side against a black background. They were viewed through a red Wratten filter No. F29. A 30 w. lamp was placed 1 meter from the object and it was viewed from a distance of 3.75 meters. A threshold determination was first made and then a 30 w. light was flashed for ten seconds at a distance of 40 cm. from the eye, and the time which was necessary to see again the different sized test objects was then measured. Size of the object was plotted against duration of the "refractory period" (recovery). Duration of the refractory period varies directly with the intensity of the light and length of exposure, and inversely with illumination of the test object. Duration of the refractory phase was longest in monocular after monocular, shorter in monocular after binocular and shortest in binocular after binocular exposure. It is concluded that the brain requires more impulse in each retina in monocular than in binocular vision. "During stimulation of the two eyes by formed light, the two images are

fused. . . . Fusion of the two images is not retinal but is central, and any changes in function which occur as the result of fusion must also be central."—*T. W. Forbes* (Harvard Bureau of Traffic Research).

3592. Feldman, J. B. Dark adaptation as a clinical test. Further studies. *Arch. Ophthalmol.*, Chicago, 1937, 17, 648-661.—Results are reported of determinations of dark adaptation on 240 eyes, 229 of which were free of ocular disease. Cases were classified in three groups: (1) previously reported cases and miscellaneous cases including conical cornea, choroiditis, glaucoma, retinal detachment and amblyopia; (2) cases with disease of blood or pathology of vessels; (3) cases with diseases associated with vitamin A deficiency. Patients were regularly pre-exposed to white light, but two normal cases were exposed instead to red, to yellow and to blue light; the red and yellow delayed adaptation markedly. Adaptation was pathological in 75% of arteriosclerotics (16 cases) and in all of four cases where vitamin A deficiency was suspected. Results for other conditions were not conclusive.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

3593. Fock-Helmstedt, G. Naturgemässe Verhütung und Behandlung von Sehstörungen durch Übungen. (Natural protection and treatment of visual disturbances by exercises.) Jungborn im Harz; Jungborn-Verl., 1937. Pp. 47. RM. 1.20.—*R. R. Willoughby* (Brown).

3594. Gault, R. H. Enlarging the usefulness of the vibrotactile senses. *Amer. J. Dis. Child.*, 1936, 53, 259-263.—*R. R. Willoughby* (Brown).

3595. Geblevicz, E. Contribution à l'étude de la persistance apparente des sensations thermiques en fonction de l'intensité. (Contribution to the study of the apparent persistence of temperature sensations as a function of intensity.) *C. R. Soc. Biol., Paris*, 1936, 122, 1258-1259.—The author found for each subject tested an optimal intensity for which the critical period was the shortest.—*M. H. Piéron* (Sorbonne).

3596. Gibson, J. J. Adaptation with negative after-effect. *Psychol. Rev.*, 1937, 44, 222-244.—A generalized statement of the principle, which would apply to any sense modality, is that: If a sensory process which has an opposite is made to persist by a constant application of its appropriate stimulus conditions, the quality will diminish in the direction of becoming neutral, and therewith the quality evoked by any stimulus for the dimension in question will be shifted temporarily toward the opposite or complementary quality. The principle is applied to color and brightness contrast, temperature contrast, apparent reversal of curvature of lines, tactual-kinesthetic shape of edges, linear direction or "tilt," visual movement (after-image of movement), tactual movement, taste, kinesthetic right and left, rotary movement, pleasantness-unpleasantness, areal contrast, etc. Certain implications for a physiological theory are suggested.—*A. G. Bills* (Chicago).

3597. Gibson, J. J., & Radner, M. Adaptation, after-effect and contrast in the perception of tilted

lines. *J. exp. Psychol.*, 1937, 20, 453-467.—A refined and quantitative investigation of an earlier study which demonstrated that a line seen as tilted somewhat from the vertical or horizontal axis appears less tilted during the course of perception. Evidence from the present experiments reveals that the degree of adaptation toward the vertical and horizontal increases with longer and longer periods of inspection in a time curve similar to those of other processes of adaptation. The tilt-adaptation is never complete, however, but levels off before the quality of tilt is completely eliminated. In another phase of the present investigation it was shown that a negative after-effect on one reference-axis is accompanied by a corresponding indirect effect on the other axis, less in amount than the direct effect. The question as to whether simultaneous contrast between neighboring regions of the visual field can be shown to operate in the perception of tilt is postponed for subsequent treatment.—H. W. Karn (Pittsburgh).

3598. Gordon, I. The sensation of vibration, with special reference to its clinical significance. *J. Neurol. Psychopath.*, 1936, 17, 107-134.—A brief summary is given of the history of the study of vibration sensitivity, and the results of the examination of 100 patients with an electrically maintained tuning fork are presented. It is concluded that the vibration test is the most delicate indicator of the integrity of the posterior columns of the spinal cord.—D. G. Marquis (Yale).

3599. Grimm, R. Konvergenz und Abstandslokalisation. (Convergence and localization in depth.) *v. Graefes Arch. Ophthalm.*, 1935, 134, 359-363.—This article is a report on a study of the minimum degree of convergence, defined as a minimum voluntary movement, the amplitude of which characterizes any muscular group. This displacement corresponds to a rotation of 6 minutes (average). On this base for the two eyes, distant by 6 cm., the author calculated the distance in depth (d) swept over by the minimum movement as a function of the distance (D) from which convergence was accomplished. As the distance decreases, the depth also decreases, but more rapidly. He attempts to show the relation between these facts and the data on movements of prehension, which are greatest at more than 60 cm., best when there is arm movement, very fine for the finger.—(Courtesy *Année psychol.*)

3600. Harms, H. Untersuchungen über die Näherungsrollung und ihre vergleichende Messung durch Nachbildmethode und Einstellung der subjektiven Vertikale. (Researches on rotation in near vision and its measurement compared to the consecutive image method and the determination of the subjective vertical.) *v. Graefes Arch. Ophthalm.*, 1935, 133, 231-253.—Curves indicate the subjective vertical and the rotation around an anterior-posterior axis, measured under diverse conditions of near vision (up to 50 cm.), as a function of distance. When the tested eye is in primary position (the other being masked by a screen) it may become inclined up to a maximum of 8° when accommodation and con-

vergence are simultaneous. This occurred with the left eye of the author, with different results for the two eyes. Three subjects showed no inclination. A fifth behaved as did the author, with a maximum of only 4°. The deviation of the subjective vertical varies in the same way as the inclination (maximum of 4° in the author, 8° in the fifth subject). If the convergence is symmetrical, the right eye also shows an inclination, but only up to 5° (the left eye over 8°). It is still more marked if the right eye does all the converging (the left eye in primary position). Experiments dissociating convergence and accommodation show that inclination is exclusively related to convergence. The inclination of the subjective vertical is in general less than that of the ocular inclination; there is a sensory compensation, but it is inadequate.—(Courtesy *Année psychol.*)

3601. Hecht, S. The instantaneous visual threshold after light adaptation. *Proc. nat. Acad. Sci., Wash.*, 1937, 23, 227-233.—"Blanchard's measurements of the instantaneous visual threshold following light adaptation to different intensities and colors are shown to fit directly into the pattern of the duplicity theory which separates vertebrate vision into cone and rod functions. Moreover, the numerical values of the measurements and the precise form of their relations are found to conform to the mathematical predictions from a reversible photochemical system previously used for describing other properties of vision and photoreception."—F. S. Keller (Colgate).

3602. Hoff, H., & Pötzl, O. Über Polyopie und gerichtete hemianopische Halluzinationen. (Polyopia and hemianopic hallucinations referred to it.) *Jb. Psychiat. Neurol.*, 1937, 54, 55-88.—P. L. Krieger (Leipzig).

3603. Koch, C. C. Suggested ocular tests to be made in visual survey work, and recommended examination routines for various visual survey purposes. *Amer. J. Optom.*, 1917, 14, 168-191.—A review of the procedures followed in 18 reported visual surveys shows that of 21 items included for investigation only 4 were used in 10 or more of the surveys. These were: uncorrected monocular acuity, muscle balance, and skiametric and ophthalmoscopic findings. The author proposes that surveys be organized according to a schedule in which each of seven examiners takes care of part of the work. The following distribution of tasks is outlined: (1) monocular acuity at 20 feet, binocular acuity at 14 inches, near point of accommodation, cover test, and color vision; (2) external ocular inspection and ophthalmoscopic examination; (3) phoria determinations with far and near fixation; (4) near-point of convergence, and ocular motility; (5) dynamic skiametry; (6) visual fields; (7) diagnosis, summary and advice. The work of the first examiner can be speeded up if he notes cover test findings while determining monocular acuity and uses the near-point test card as an occluder; this can be brought up to the near-point of accommodation after acuity

at 14 inches has been determined.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

3604. **Korngold, S.** *Influence du genre de travail sur l'appréciation des grandeurs temporelles.* (Effect of nature of work on awareness of time intervals.) *Travail hum.*, 1937, 5, 18-34.—Subjects estimated intervals of 120, 300 and 600 seconds while copying text and while performing a stamping or a twisting operation. Averages of all the subjects show approximately negative results. Taking the total estimates for a subject as compared with total time elapsed makes it possible to divide subjects into those who over- and those who underestimate. Such a division runs consistently through the various series. Reliability, that is, correlation between accuracy in two trials, is greatest for a monotonous copying task. Results as to the effect of the type of work are equivocal, as the greatest under- and overestimation is made with the monotonous tasks.—*H. E. Burt* (Ohio State).

3605. **Langbein, A.** *Zur sensiblen Reizung durch chemische Stoffe.* (Sensory stimulation by chemical agents.) *Tübingen: Bölzle*, 1937. Pp. 19.—*R. R. Willoughby* (Brown).

3606. **Lindner, R.** *Zum Sprachetasten und seiner methodischen Verwendung im Taubstummenunterricht.* (Speech by touch and its methodical application to the instruction of the deaf.) *Arch. ges. Phonet.*, 1937, 1, 49-55.—Lindner reports on the progress made as the result of further investigations on the subject of the mechanical and electrical senses of touch. Most of the papers originate from the Leipzig Physiological Institute (Gildemeister). The range of vibrations which can be felt mechanically has proved to be greater than was formerly assumed (estimates of over 1600 hz by Kleinknecht-Schöbel, over 2000 hz by W. Trendelenburg, over 3000 hz by Setzepfand, over 8000 hz by Goodfellow). The range of electric feeling is much greater—higher than 100,000 hz according to Gildemeister. The tactile apparatus constructed on the basis of results disclosed by recent research consists of a microphone transmission which is amplified separately in the higher and lower ranges of frequency, so that the lower frequencies can be felt mechanically and the higher ones electrically. In this way it is possible with purely tactile facilities to differentiate between *a*, *i* and *u* distinctly; also with certainty between *u* and *ü*, *a* and *ng*, voiced and voiceless consonants, *s* and *sch*, aspirated and non-aspirated explosives, accented and non-accented syllables. Methodically the tactile aids should be used to complement lip reading, not as a substitute for it, especially in the case of complete deafness but also in patients with remnants of hearing where the tactile threshold lies above that of the sense of hearing; as well as in the beginning instruction of the less deaf as a complement to the restricted range of hearing.—*P. L. Krieger* (Leipzig).

3607. **Long, L.** *A study of the effect of preceding stimuli upon the judgment of auditory intensities.* *Arch. Psychol., N. Y.*, 1937, No. 209. Pp. 57.—

The study was concerned with the effect of preceding stimuli upon the judgments of succeeding stimuli. The stimuli consisted of auditory intensities varied over a range of 20 to 50 decibels in steps of 2 decibels. The frequency remained constant. The method of constant stimuli was used, but the observers judged the variables in absolute units. The experiment demonstrated that under certain conditions, stimuli oppose each other in such a way that a weak stimulus preceded by a strong one is judged weaker than it actually is, and vice versa. This is referred to as contrast, and its presence has been found in experiments employing a variety of stimuli. The explanation of why contrast operates must be postponed.—*E. M. Achilles* (Columbia).

3608. **Lorente de N6, R.** *The function of the central acoustic nuclei examined by means of the acoustic reflexes.* *Laryngoscope, St. Louis*, 1935, Aug. Pp. 23.—In the cochlea the nervous impulses reach Corti's ganglion, whence they pass in the cochlear nerve as far as the first acoustic nuclei, where the ganglion cells send out processes toward the cortex, with a synapse in the internal geniculate body, and toward the superior olivary reflex center, provoking a contraction of the tensor tympani through the medium of its motor nucleus. With a very sensitive myograph the author recorded the contraction of the tensor tympani muscle of a decerebrate rabbit when a sound was produced of a given frequency and duration at several levels of intensity. The latency of the contraction, an inverse function of the intensity, did not exceed 10 to 12 σ for intense sounds. The contraction force, on the logarithmic scale of intensities for a sound of 1024 v.d., makes a typical S curve, with durations of stimulation of 53 to 30 σ ; with a duration of 12 σ , the increase in response is linear. As a function of the duration of sound, the tension of the muscle increases first quickly and then slowly. The author believes he can deduce from the quantitative facts and from the analysis of the duration and form of the muscular response that summation takes place during 25 to 35 σ , after which there is a diminishing effect which continues if the sound is prolonged. There would be periodic waves of excitability of the nuclei at about 20 to 25 per second.—*M. G. Willoughby* (Brown).

3609. **Lorenz, J.** *Consistency of auditory acuity or variability of individuals among four tests with the 2-A audiometer.* New York: Author, 1936. Pp. 162. \$1.50.—A number of factors which might affect tests of auditory acuity were studied on four repetitions of the 2-A test. The tests were made in a quiet but not sound-proof room. 30 children were selected to make up 2 groups, normal (mean hearing loss 0.65%) and hard of hearing (mean loss 23%), of equivalent age, sex and Binet IQ. The results, expressed in % loss at 512, 1024 and 2048 σ , showed a high degree of consistency from test to test. The normal children were slightly more consistent than the hard of hearing. The more intelligent were slightly more consistent than the less intelligent.

High humidity at the time of test, lack of emotional poise, and history of ear disease may possibly be related to lesser consistency. Other factors studied showed no significant relation to consistency. The literature on the subject is reviewed but not evaluated. Bibliography of 213 titles.—C. W. Bray (Princeton).

3610. Luckiesh, M., & Moss, F. K. Glare from sodium light. *Trans. Illum. Engng Soc. N. Y.*, 1935, 8, 602-610.—Using 6 subjects, the authors made a study of monochromatic yellow. It dazzles more than the white, and the difference increases as the distance between the source of the glare and the fixed point decreases. This is not significant beyond 5° of deviation between the center of the source and the point of fixation. On the other hand, it varies in inverse proportion to the brilliance of the field.—M. G. Willoughby (Brown).

3611. Mallet, R. La douleur du point de vue psychiatrique. (Pain from the psychiatric point of view.) *Presse méd.*, 1936, 44, 1868-1876.—Pain belongs to the field of psychiatry to the degree that it appears disproportionate to its cause. After reviewing the role of pain in mental disturbances, the author concludes that physical pain cannot be separated from mental pain in mental pathology. Painful cenesthesia can bring about melancholia, and frequently a legitimate anxiety assumes a pathological character through cenesthetic repercussions.—M. H. Piéron (Sorbonne).

3612. Martens, E. H. The deaf and the hard-of-hearing in the occupational world. *U. S. Off. Educ. Bull.*, 1936, No. 13. Pp. x + 95.—The study was conceived with the idea of obtaining data concerning types of occupations in which deaf adults are now successfully employed, and to use the data thus obtained in vocational guidance of deaf and hard-of-hearing young people. Field workers contacted nearly 2000 individuals between the ages of 16 and 70 years in 27 states covering all sections of the country. 50% of these were employed at the time of the survey. Employers were interviewed to determine the employment status and success of deaf employees. The data were analyzed to determine: (1) the employment status of the individuals; (2) types of occupations; (3) occupational success; and (4) employers' estimates of deaf employees. The results show that one sixth of those now employed are doing work for which they were trained in schools for the deaf. The large majority of those employed can be classed as unskilled laborers. These facts and others suggest to the author that a more general program of vocational training and vocational guidance is needed, especially in schools for the deaf.—C. V. Hudgins (Clarke School).

3613. Millot, J. Le sens du goût chez les araignées. (The sense of taste in spiders.) *Bull. Soc. zool. Fr.*, 1936, 61, 27-38.—The author demonstrates the presence of gustatory perceptions in spiders. He found that when certain reflexes were stimulated the spider would capture nearly any kind of insect of proper size, but would immediately reject many

of the insects thus seized. He also found the seat and receptor organ of the gustatory sensation in these spiders. A bibliography of 25 titles is appended.—M. H. Piéron (Sorbonne).

3614. Mouton, M. Recherches sur les propriétés physiques et les effets physiologiques d'une lumière colorée. (Studies on the physical properties and the physiological effects of a colored light.) Paris: Sauviat & LeLièvre, 1935. Pp. 95.—The author makes a study of the physical characteristics of the Yvel yellow lamp; and, using 10 subjects, compares acuities in white and yellow between .03 and 100 lux. The results show great variability in individuals; the acuity is in general better for the selective yellow, but the advantage is much less than for the yellow of sodium. There is also a discussion of differential sensitivity, the effect of haziness, time of readaptation, and reading speed.—(Courtesy *Année psychol.*)

3615. Nafe, J. P., & Wagoner, K. S. I. The experiences of warmth, cold, and heat. *J. Psychol.*, 1936, 2, 421-431.—This paper introduces Nafe's hypothesis that qualities of warmth and cold depend upon relaxation and contraction, respectively, of vascular musculature, and that heat depends upon the simultaneous or closely successive relaxation and contraction of vascular muscle elements. It also introduces four other papers each of which describes an experiment containing evidence for this hypothesis. The independent discoveries of punctiform sensitivity to temperature by Blix, Goldscheider, and Donaldson are described. Von Frey's hypothesis that the end-organs under warm and cold spots were specific in their sensitivity is shown to be out of line with the evidence found in the long series of experiments which followed its enunciation. Neither warm nor cold spots were found to be specific to warm or cold stimuli. Higher intensities of stimulation brought out more points. The argument for the new hypothesis begins by noting that many sensory qualities (hunger, nausea, kinesthesia) really result from patterns of afferent nervous activity set off by muscular tensions. It is then pointed out that a very close correspondence exists between the critical temperatures and the behavior of plain muscle, and that the blood vessels of the skin and the arrector muscles of the hairs are both supplied with plain muscle elements and are equipped with a large supply of visceral afferent fiber endings. Either contraction or relaxation of these vascular muscles results in impulses to the central nervous system. Work is mentioned which has shown that such muscular action may be caused reflexly by action of sympathetic fibers, locally by action of adrenin, or by action of warm or cold stimuli. The argument concludes with an array of evidence for this new hypothesis derived from historical researches and four new investigations. For example, while none of the investigators found specialized nerve-endings under the temperature spots, both von Frey and Goldscheider noted clusters of blood-vessels; and again, the paper which describes the evidence for considering Krause's end-bulbs responsible for cold reports that these nervous structures occur very near

masses of small blood-vessels in the margin of the cornea.—J. McV. Hunt (Brown).

3616. Nafe, J. P., & Wagoner, K. S. II. The sensitivity of the cornea of the eye. *J. Psychol.*, 1936, 2, 433-439.—The sensitivity of the cornea to warmth and cold was redetermined, first of all, because previous investigators, fearing injury to the eye, have used stimuli which left no assurance that the temperature intended was actually delivered to the cornea, and second, because Nafe's theory of thermal sensitivity, namely, that contractions and relaxations of visceral muscles around the blood-vessels account for the stimulation of nervous activity resulting in cold and warmth respectively, has made it important to determine the sensitivity of any area free of blood-vessels to warmth and cold. The results show that the cornea is sensitive to neither warmth nor cold, except at the peripheral margin for a distance of about 1 mm. This marginal sensitivity of the cornea is considered to be due to the spreading of temperature effects to the sclera, which is sensitive to both warmth and cold. These facts are in harmony with Nafe's theory, but they are out of harmony with the theory of von Frey and Goldscheider, which attempts to relate thermal sensitivity to the activity of end-organs specific to warmth and cold. It is also shown that stimulation of the cornea results in many such qualities as pressure and pain, which are mediated by free nerve endings. These facts defeat Head's theory, for which it is essential that all end-organs functionally associated with pressure or pain must also be associated with thermal experience, and they also defeat von Frey's theory for which it is essential that end-organs of different types be associated with pain and pressure.—J. McV. Hunt (Brown).

3617. Nafe, J. P., & Wagoner, K. S. V. The effect of thermal stimulation upon dilation and constriction of the blood vessels of the skin of a contralateral hand. *J. Psychol.*, 1936, 2, 461-477.—The effect of thermal stimulation upon dilation and constriction of the blood vessels of the skin of the contralateral hand was investigated with the plethysmograph. The results show that stimulation with cold water or air produces constriction and that warm water or air produces dilation of the blood vessels in the contralateral hand. The amount of constriction is dependent upon the intensity of the cold stimulus and to some extent upon its duration, and the amount of dilation is dependent upon the intensity of the warm stimulus within the limits of our sensitivity. Stimulation of one hand by stimulus temperatures above those correlated with qualities of warmth produces constriction in the contralateral hand. These results agree with those obtained by Brown-Sequard, and afford further evidence in favor of Nafe's theory that thermal sensitivity results from afferent impulses set off by constriction and dilation of peripheral arterioles.—J. McV. Hunt (Brown).

3618. Nissen, H. W., & McCulloch, T. L. Discrimination experiments with chimpanzee: lifted

weights and visual stimuli. (Silent film.) New York: Instructional Films, Inc., 30 Rockefeller Plaza, 1935. 1 reel, 356 ft., 16 mm., 12 min. \$2.50 rental per use-day; \$27.50 sale.—Produced by Yale Laboratories of Primate Biology. Of many methods of testing the ability of animals to discriminate stimuli or situations, three used with chimpanzees are shown in this film. A complex series of visual discriminations is acquired in the "pull-in apparatus." Ability to respond to oddity is demonstrated in a novel apparatus which presents twelve stimulus-objects simultaneously. Chimpanzees learn to lift two or more weights successively and to place the heaviest one on a shelf.—H. W. Nissen (Yale).

3619. Olasz, P. *Eidetika a gyermek- és serdülőkorban.* (Eidetics in childhood and puberty.) *Vigilia*, 1936, 2, 94-98.—Enumeration of the advantages and disadvantages with regard to school progress, achievement in different school subjects, sexuality, concentration, reliability, etc., of pupils.—P. Ranschburg (Budapest).

3620. Parker, G. H. Color changes due to erythrocytes in the squirrel fish *Holocentrus*. *Proc. nat. Acad. Sci., Wash.*, 1937, 23, 206-211.—Incisions of trunk and dorsal fin of white and red specimens of *Holocentrus ascensionis*, direct electrical stimulation of the medulla, injection of adrenalin and obstetrical pituitrin, as well as blood transfers and injection of extract obtained by mincing pituitary glands of several specimens, provide data supporting the conclusions that the erythrocyte color changes of *Holocentrus* are exclusively under nervous control, no water-soluble hormone (hydrohumor) being involved; that the erythrocytes possess a double innervation, of dispersing and concentrating nerve fibers; and that "the concentrating fibers act on the red color cells through a neurohumor soluble in lipoids, a lipohumor."—F. S. Keller (Colgate).

3621. Piéron, H. *Recherches expérimentales sur la sensation vibratoire cutanée.* (Experimental studies on the vibratory sensation of the skin.) *Année psychol.*, 1936, 36, 82-102.—This research is concerned in particular with the determination of the temporal aspects of the vibratory sensation. To furnish the mechanical vibrations the author used a 2A Western Electric audiometer and the induction coil of the electromagnetic loud speaker Point Bleu (type 66R). The decrease in the time of the reaction as a function of intensity increase is influenced by the frequency of vibration within the limits 64 to 1024 v.d. The latent time is longer for the lower frequencies, especially in the region of the threshold. With an increase of the vibratory frequency the limit of summation is reduced, up to 100 v.d., above which the time of liminal reaction is dependent upon a constant limit in the number of vibrations. The continuous variation of the thresholds with sinusoidal waves confirms the work of Fessard with rectangular waves and confirms the hypothesis that the vibratory sensations are of cutaneous origin and are due to mechanical stimulations of pressure. The perception remains vague and propagation of

the stimulation plays an essential role in the spatio-temporal perception of the vibration.—E. T. Raney (Brown).

3622. Piéron, H. *La place et l'orientation scientifique de la physiologie des sens. Une critique des conceptions nouvelles de Renqvist-Reenpää.* (The place and scientific orientation of the physiology of the senses. A criticism of the new conceptions of Renqvist-Reenpää.) *Année psychol.*, 1936, 36, 147-156.—The author considers the scientific philosophy of Renqvist (*Sinnesphysiologie*) interesting, but false and dangerous. Renqvist assumes that the stimulus corresponds to a class of abstractions which may be considered as in an isomorphic relation with the sensations, i.e. as a corresponding set of abstractions. Units of measurement may be topological or metrical. As opposed to Renqvist and the Fechnerian psychophysics, the domain of sense physiology is thought by Piéron to be those relations, on the one hand, between physical dimensions of the stimulus and the biological reactions which constitute the processes of excitation, and on the other hand between the united and intermediate reactions and sensory processes.—E. T. Raney (Brown).

3623. Piéron, M. H. *Recherches sur l'appréciation des épaisseurs chez les écoliers.* (Studies on judgment of thickness by school children.) *Année psychol.*, 1936, 36, 46-64.—The purpose of these researches was the standardization of an apparatus for the measurement of the sensation of thickness (pacho-esthesimetre of H. Piéron). Norms and reliability figures based on 300 school children 11 and 12 years old are given. There was a greater percentage of positive errors; a positive error is an error which extends beyond the standard, starting from either end. More errors and greater errors were made in exploring from an increase to a decrease in thickness. A greater number of underestimations were made and the average error of underestimation was greater than the average error of overestimation. In the series of tests in which tactual presentation was reproduced visually, a similar tendency was obtained.—E. T. Raney (Brown).

3624. Sumner, F. B., & Doudoroff, P. *Some quantitative relations between visual stimuli and the production or destruction of melanin in fishes.* *Proc. nat. Acad. Sci., Wash.*, 1937, 23, 211-219.—Post-mortem determinations of the melanin content of specimens of the long-jawed goby, *Gillichthys mirabilis*, following their color adjustments to four aquarium-wall intensities (white, pale gray, dark gray, and black) under two different illuminative intensities (bearing a 40 to 1 ratio) over an exposure period of 87 days, shows the following: (1) "a rather regular gradation in melanin content among the fishes in the four aquaria" under each condition of illumination; (2) the melanin content is "nearly inversely proportional to the logarithm of the albedo of the background" (albedo = ratio between light reflected from the nearby surfaces within the experimental tank and light entering the tank from above)

in a manner that approximates the Weber-Fechner law; (3) the effect of differences of incident light are small in comparison with the effects of differences in albedo (significant in its bearing upon color-constancy in humans); and (4) the differences in melanin content conform as a whole to the visible differences in shade noted in the living animals at the close of the experiment.—F. S. Keller (Colgate).

3625. Thomas, M. *La vue et la sensibilité tactile chez les araignées.* (Vision and tactile sensitivity in spiders.) *Bull. Soc. ent. Fr.*, 1936, 41, 95-96.—Contrary to the opinion of J. Denis, the author believes that vision plays an active part in the spiders' behavior in capture or in immobilization.—M. H. Piéron (Sorbonne).

3626. Vogel, M. A. *Eyesight surveys.* *Person. J.*, 1937, 16, 22-25.—An eyesight survey including a thorough ophthalmological examination of all employees with defective vision is recommended for industry as a whole. Where such have been conducted, the firms have reported such favorable results as increased production, better quality of work, less waste of materials and decrease in number of accidents. In addition, a record of the eye condition is very important to protect employers in litigations based on industrial eye injuries. Many employees will otherwise deny previous defective vision.—M. B. Mitchell (Bellevue Hospital).

3627. Wagoner, K. S. IV. *The effect of warmth and cold stimulation of one hand upon the skin temperature of the contralateral hand.* *J. Psychol.*, 1936, 2, 451-459.—The effect of warmth and cold stimulation of one hand upon the skin temperature of the opposite hand was investigated with a thermocouple designed especially for this purpose. Within 15 sec. neither cold nor warmth stimulation produced any very consistent change in the skin temperature of the other hand. The data showed a very inconsistent average decrease following cold stimulation of about 0.0015° C., and a similar increase for warmth stimulation. In the case of neither warmth nor cold stimulation is the average change in skin temperature of the contralateral hand significantly different from the average change for a similar period without stimulation. "Since it has previously been shown that within 5 sec. thermal stimulation of one hand results in a change in threshold in the contralateral hand of 0.3° C., and since this work demonstrates that after 15 sec. of such stimulation there is no consistent or significant change in the temperature of the skin of the contralateral hand, it follows that the threshold change cannot be attributed to a change in skin temperature. Therefore von Frey's theory of our sensitivity to temperature is not adequate to the facts."—J. McV. Hunt (Brown).

3628. Wagoner, K. S., & Havermann, E. C. III. *The effect of thermal stimulation of one hand upon the temperature limen in the contralateral hand.* *J. Psychol.*, 1936, 2, 441-449.—Reports were obtained for the qualities felt by the right hand for a series of temperatures when the left hand was held in

water at 33° C. for control series. Similar reports in test series were obtained when the left hand was held briefly in water of 23° C. or 43° C. The results demonstrated that immersing one hand in warm water raises the threshold for warmth in the other hand, and that immersing one hand in cold water raises the threshold of the other hand for cold. Under the conditions employed these changes in threshold were, in either case, approximately 0.3° C. Inasmuch as Brown-Sequard once reported that if one hand is chilled there is vascular constriction in both hands, these results are seen as a critical test favoring Nafe's theory that thermal sensitivity results from the pattern of afferent impulses aroused by vascular constriction and dilation of the peripheral arterioles.—*J. McV. Hunt (Brown)*.

[See also abstracts 3503, 3538, 3545, 3552, 3562, 3563, 3620, 3736, 3749, 3853, 3910.]

LEARNING, CONDITIONING, INTELLIGENCE

(incl. Attention, Thought)

3629. Adkins, D. C. The effects of practice on intelligence test scores. *J. educ. Psychol.*, 1937, 28, 222-231.—The author reviews the literature on the problem and reports data obtained in the Mooseheart school survey. In the three tests used—the Kuhlmann-Anderson, the Morgan mental, and the Otis—children who repeated the tests two or three times at intervals of a year made higher scores than children of the corresponding school grade who were taking the tests for the first time. An increase in the S.D. of the scores with practice suggests that the children who made the highest scores on the first test gained most as a result of this practice when the test was repeated. The need for some technique to correct for practice effects in longitudinal studies of mental growth is emphasized.—*A. W. Mellon (Missouri)*.

3630. Allen, W. F. Olfactory and trigeminal conditioned reflexes in dogs. *Amer. J. Physiol.*, 1937, 118, 532-540.—The method was paw lifting to avoid shock. The animals were 30 normals, 6 trigeminal preparations (maxillary and nasociliary nerves cut and thus partially trigeminized), 5 anosmic (olfactory bulbs severed) and one with eyes enucleated and olfactory bulbs severed at birth. Under the conditions of the experiment cloves, anise, asafetida, benzol or xylol gave conditioned reflexes only over the olfactory nerves, while camphor, eucalyptus, pyridin, butyric acid, phenol, sheep dip, ether and chloroform gave them over both olfactory and trigeminal paths. The dog with enucleated eyes and transected olfactory bulbs acquired no CR's. Vapors which produced a respiratory reflex were capable of producing a CR, so that occurrence of the former was predictive.—*T. W. Forbes (Harvard Bureau of Traffic Research)*.

3631. Benedek, L. A tanulási egézségtana. (Hygiene of learning.) *Gyermektanulmányi Füzetek*, 1935, 4.—A short summary of the somatic and

psychic conditions of learning and its disturbances.—*P. Ranschburg (Budapest)*.

3632. Burbridge, B., & Yerkes, R. M. Behavioral experiments with Congo, a young mountain gorilla. (Silent film.) New York: Instructional Films, Inc., 30 Rockefeller Plaza, 1933. 1 reel, 393 ft., 16 mm., 12 min. \$2.50 rental per use-day; \$27.50 sale.—Produced by Yale Laboratories of Primate Biology. The film presents psychological tests of a young mountain gorilla captured in the Belgian Congo by the late Ben Burbridge and loaned to R. M. Yerkes for study. This is the first experimental study of gorilla behavior. The film includes a record of the original solution of the box-stacking problem by Congo, and it exhibits characteristics of gorilla temperament and intelligence.—*R. M. Yerkes (Yale)*.

3633. Chauchard, A., Chauchard, B., & Drabovich, W. Vérification des modifications de l'excitabilité corticale au cours du réflexe conditionné. (Verification of the modifications in cortical excitability during the course of a conditioned reflex.) *C. R. Soc. Biol., Paris*, 1937, 124, 530-532.—The authors have previously shown that the modifications of cortical excitability during the course of a conditioned reflex which are to be found at the periphery are also to be found in the motor zones and have the same significance. These experiments were made by the condenser method. With a different method the authors have now found results which conformed with those previously obtained: the chronaxy diminished both at the periphery and in the cortex. Isochronism was not perfect during a state of indifference but became so during movement.—*M. H. Piéron (Sorbonne)*.

3634. Cohn, J. "Ich denke" und "Es denkt." Untersuchungen an spontanen Denkverläufen über die Struktur des Seelenlebens. ("I think" and "thinking takes place." An investigation of the spontaneous continuity of thought in relation to the structure of the mind.) *Acta Psychol., Hague*, 1936, 2, 1-75.—A theory of knowledge necessarily involves a consideration of the activity of the subject, a fact which the psychology of thought has heretofore failed to introduce. Theoretical implications of certain philosophical considerations and of the author's own researches point to the following conclusions: (1) Although the idea of intentionality (Brentano) is an aspect of perception and thought, it is erroneous to believe that an object is implied by every psychical datum. (2) Distinction should be made between psychic contents, mental acts, and indistinct psychic states. (3) The principle of such division is based on objectification, since these features of perception and thought are changed by objectification. (4) Certain acts of thinking start phenomenally from contents, objects or psychic states ("thinking takes place"), others from experienced act-centered states ("I think"). (5) The active "I" in thought should be distinguished from "self" although the two bear a close relation to each other. (6) Phenomenally experienced states of

"thinking takes place" often arise from decisions and attitudes involving an orientation "I think," and conversely the ability exists to eliminate conscious volition and observe that "thinking takes place."—K. U. Smith (Rochester).

3635. Cook, T. W. Whole versus part learning the spider maze. *J. exp. Psychol.*, 1937, 20, 477-484.—An intensive study of the whole-part problem with "blindfolded" maze learning. 38 patterns of four sizes (2, 4, 8, and 16 units) were learned by each of three subjects. An earlier finding of the author that factors affecting efficiency of performance on the first trial and in later trials follow different laws is supported by the data of the present experiment. Differences between the relative economy of the part and whole methods on the first trial were negligible or slight according to all criteria. One of the major generalizations drawn from the data on later trials is that the part method is superior in errors and the whole method in trials and time. Data on practice effects, individual differences, and the relative difficulty of the various maze parts are also presented.—H. W. Karn (Pittsburgh).

3636. Drabovitch, W., & Weger, P. Réflexes conditionnées et chronaxies. (Conditioned reflexes and chronaxies.) *C. R. Soc. Biol., Paris*, 1937, 124, 814-817.—In collaboration with A. Chauchard and B. Chauchard, one of the authors has already shown that the chronaxy, peripheral as well as cerebral, changes at the various periods of the conditioned reflex several seconds before or after the release of the reflex. The authors studied the question of the change of chronaxy at the moment the unconditioned reflex is released. They have found that in this case the chronaxy remains practically the same. The peripheral chronaxy of the unconditioned reflex continues to be normal.—M. H. Piéron (Sorbonne).

3637. Dugas, L. La théorie de la mémoire affective chez Maine de Biran. (Maine de Biran's theory of affective memory.) *Rev. Métaphys. Morale*, 1935, 52, 15-28.—The author makes an analysis of de Biran's *L'Influence de l'Habitude sur l'Art de Penser*, in which de Biran attacks the problems of amnesia and veracity in connection with memory of feelings. The author explains de Biran's view that feelings once experienced cannot be called back voluntarily; he also shows the logical difficulty in using the word "veracity" in relation to feelings, since it has a different connotation in the emotional from that in the conceptual field.—(Courtesy *Année psychol.*)

3638. Dusser de Barenne, J. G., & McCulloch, W. S. Local stimulatory inactivation within the cerebral cortex, the factor for extinction. *Amer. J. Physiol.*, 1937, 118, 510-524.—The authors have shown extinction when a second cortical stimulus followed the first by 13 seconds. The present paper shows that it originates in the cortex. Experiments were done under dial and under ether. Stimulation was by means of a special apparatus consisting of a rotary contactor with three pairs of adjustable contacts, lock-in relays and mercoid switches.

Depth of narcosis affects the interval, and conditions which depress cortical activity prolong the interval; in the waking state it is about 4 seconds. Facilitation instead of extinction was obtained with the cortex removed by thermocoagulation or surgery, but with only three outer layers killed extinction was obtained. It is therefore a cortical phenomenon. Longer duration and higher frequency of the stimulus gave greater extinction. Lower pulse frequency (inverse of pulse duration) gave greater extinction. Extinction is distinguished from inhibition in that the former is the phenomenon produced by two stimuli at the same focus, while the latter occurs from stimulation of antagonistic foci. It is held that for various reasons extinction cannot be from fatigue or exhaustion. It is suggested that extinction is either (1) due to a loss of background activity in reverberating circuits due to the previous discharge (after Lorente de N6) or (2) due to a cumulative physicochemical change corresponding to the positive after-potential and decrease in excitability in peripheral nerve.—T. W. Forbes (Harvard Bureau of Traffic Research).

3639. Fischel, W. Die Instinkte und die primitiven Gedächtnisleistungen der Tiere. (Instinct and the primitive memory capacities of animals.) *Acta biotheor.*, 1937, 3, 87-98.—The comparison between acquired and innate capacities of animals shows a similarity between kinesthetic and instinctive actions. Both kinesthetic and instinctive actions can be performed independent of their aim. Observation and instinct act in both cases in practically the same way as an inducement to action. These considerations lead to the hypothesis that instincts are kinesthetic habits which have become hereditary. It is possible to solve this problem experimentally.—W. Fischel (Leiden).

3640. Franceschi, A. El pensamiento sin imagen. (Thought without images.) *An. Soc. Psicol. B. Aires*, 1934-35, 1, 105-123.—The author divides mathematical thought into three categories, two of which permit the use of images (for the conversion of objects and real facts into symbols and for the normal return of the symbols to the objects). The third permits the use of mnemonic automatisms for which the work of appropriate machines can well be substituted; it is, therefore, no longer true thought.—(Courtesy *Année psychol.*)

3641. Jackson, T. A. The use of tools by the chimpanzee in problem solution. (Silent film.) New York: Instructional Films, Inc., 30 Rockefeller Plaza, 1934. 1 reel, 332 ft., 16 mm., 10 min. \$2.50 rental per use-day; \$27.50 sale.—Produced by Yale Laboratories of Primate Biology. This is the record of a series of experiments investigating the nature of tool-using or instrumentation in chimpanzees. The animals had been given little or no previous contact with the types of materials used in the study (sticks, strings, levers, open mazes, and combinations of these), and it was therefore possible, in many cases, to trace the development of ability to use and to construct tools. The film illustrates the limitations

as well as the marked capacities of this ape in mechanical invention and skill.—H. W. Nissen (Yale).

3642. Klüver, H. Re-examination of implement-using behavior in a *Cebus* monkey after an interval of three years. *Acta Psychol.*, Hague, 1937, 2, 347-397.—Three years after observation in various problems involving implement-using behavior, the performance of a *Cebus* monkey was re-examined in similar situations. Investigations were made with the following problem situations; use of one or more objects, discrimination of objects required in the solution of a problem, removal of obstacles, modification of objects for use in problem solving, fabrication of tools, "detour-beam" problems, use of the two hands in problem solving, pushing food through a tube or a box, release of a stick in order to use it in obtaining food, rotation of a food-support relative to another object. In these situations the monkey was able to reach a solution in all but the "double-beam" problem and that requiring modification of objects for use as tools. All problems solved in the original series of tests were solved in the course of these later experiments, and the solutions made involved many similarities of performance. It is concluded that the *Cebus* monkey is equal to the anthropoid apes in the ability to use tools.—K. U. Smith (Rochester).

3643. Langer, W. C. The role of organization in the learning of a sensori-motor task. *J. Psychol.*, 1936, 2, 317-325.—In order to provide a situation for the examination of the learning performances for indications of organization, subjects were given the task of learning which of 10 visual stimuli corresponded to each of 10 telegraphic keys. In the course of learning there appeared continuous voluntary attempts to organize the material. Inasmuch as this organization was voluntary, the term "schematization" is employed. The investigator concludes that learning of this type does not progress by a gradual elimination of errors on all S-R associations simultaneously, but that one S-R association is acquired at a time while the others remain practically unchanged. The number of discrete S-R connections possible to acquire at once is limited to 4 or 5 (span of discrete assimilation); therefore, schematization of the S-R associations is a prerequisite to mastery of the task.—J. McV. Hunt (Brown).

3644. Montpellier, G. de. L'influence de la similitude des tâches dans l'inhibition rétroactive chez les animaux. (The influence of similarity of problem on retroactive inhibition in animals.) *Année psychol.*, 1936, 36, 33-45.—In applying the principle of retroactive inhibition to the problem of learning in animals, the author utilized the maze situation. After the rats had learned a maze thoroughly, activity was interposed on an identical maze rotated 180°, or on another maze model, or on a simple displaced line maze, or simply in the home cage. Significant differences in number of errors made on the original maze after the interposed activity were not discovered. The author concludes that the

results indicate the pronounced unitary character of the maze performance. Internal cohesion will prevent the operation of inhibition between elements which are more or less similar. It is thought further that in the explanation of learning in animals it is necessary to assume some non-exteroceptive control of the learned response.—E. T. Raney (Brown).

3645. Razran, G. H. S. Attitudinal control of human conditioning. *J. Psychol.*, 1936, 2, 327-337.—The influence of attitudes on salivary conditioning is studied. The learning of a maze during the conditioning process served to control the attitude of the subject in two ways: First, the subject became absorbed in a task other than conditioning ruling out verbal and attitudinal activities. Second, by use of red lights signaling wrong responses and green lights signaling right responses in the maze, it was believed that varying central attitudes would be aroused to these stimuli. The red and green lights also served as the conditioning stimuli in addition to acting as cues for solving the maze. The conditioning thus obtained was very constant and regular. However, the test trials revealed that the red (wrong stimulus) and the green (right stimulus) exert differential effects upon conditioning, indicating a negative "feeling tone" toward the red light and a positive tone to the green. The author believes human conditioning must be interpreted "in terms of controlling attitudes, integrated with the subject's total experience behavior, rather than in terms of C-R acquisition-extinction curves split off from the subject's general activity stream."—F. L. Reinwald (Brown).

3646. Rexroad, C. N. Reaction time and conditioning: extinction, recovery, and disinhibition. *J. exp. Psychol.*, 1937, 20, 468-476.—The data presented in this study show phenomena at least analogous to conditioning, differentiation, extinction, recovery, and external inhibition, and the phenomena are revealed through a study of a voluntary rather than a reflexive action. Essentially, the basic procedure used in securing the data consisted of the presentation of a secondary stimulus (buzzer) followed in three seconds by a stimulus (flash of light) to which the subject had been instructed to react by making a full revolution of a crank, with reaction time measured and taken as an index of readiness to respond to the light.—H. W. Karn (Pittsburgh).

3647. Rodnick, E. H. Characteristics of delayed and trace conditioned responses. *J. exp. Psychol.*, 1937, 20, 409-425.—The development of the delayed galvanic skin response was studied in 20 subjects. A faint light of 21.3 seconds' duration served as the conditioned stimulus. An electric shock delivered 20.1 seconds after the onset of the light served as the reinforcing stimulus. Five other subjects served in the experiment with trace conditioned responses. In this case a tactual-vibratory stimulus of .180 seconds' duration was followed after an interval of 17.4 seconds by a shock. Results are as follows: (1) The mean latency of the delayed CR to the light increased 5.7 seconds during the experimental session

of 47 stimulations. The mean latency of the trace CR showed an increment of 4.1 seconds after 374 reinforcements in 20 experimental sessions. (2) A 15-minute rest interval caused the delayed CR to move forward 42% of the distance to its original position. (3) The mean latency of the last 25% of the trace CR's for each session showed a progressive increase during the experiment, whereas the mean latency of the first 25% of each day's reactions showed a very slight increase. (4) A second anticipatory reaction near the point of reinforcement increased in latency with training in both experiments. In the delayed CR experiment, the frequency of this response was constant at about 32% of the cases, whereas in the trace CR experiment this frequency increased at a negatively accelerated rate with continued training.—*H. W. Karn* (Pittsburgh).

3648. Russell, R. W., & Hunter, W. S. The effects of inactivity produced by sodium amytal on the retention of the maze habit in albino rats. *J. exp. Psychol.*, 1937, 20, 426-436.—"There is no clear evidence that the retention of a partially learned maze habit is better in rats that have been anesthetized with sodium amytal for from 8-17 hours of an interpolated 24 hours than it is in normal rats after a 24 hour period. This conclusion is supported by the essential statistical equality of the mean and median error records of the two groups. Furthermore, the correlation between length of time under amytal and retention scores is negligible. The evidence indicating a possible favorable effect of the anesthesia on retention is: (1) The number of amytal rats who showed perfect retention was 50% higher than the number of normal rats making such a record; and (2) there is some evidence that the thirst drive in the amytal rats was less than in the normals."—*H. W. Karn* (Pittsburgh).

3649. Sargent, W. The effect of benzedrine on intelligence scores. *Lancet*, 1936, 231, 1385-1387.—Patients at the Maudsley Hospital were given the Cattell intelligence test before and after the administration of benzedrine. The procedure was to present one of these forms to the patient on the first day and the equivalent form 24 hours later, after the administration of 20 mg. of the drug. There was no change in the average level of performance for the control group, but the experimental group showed an average increase of 8.7% in the test score.—*D. J. Ingle* (Mayo Foundation).

3650. Sklyarov, Ya. P. [Modifications in strength of paired secretory reflexes with partial anesthesia of the buccal mucous.] *Méd. exp., Kharkov*, 1937, No. 3, 77-82.—Partial cocaineization of the buccal mucous of the dog on either side provided differential secretory response to parotid stimulation, the strength of the reflex decreasing on the side submitted to the action of the drug. It is concluded from this and earlier studies that (1) the strength of the secretory reflex depends upon the excitability of the receptor surface; and (2) the excitation of the central portion of either reflex arc does not pass over to the

opposite side, and does not exercise any influence upon the activity of the opposite gland.—*F. S. Keller* (Colgate).

3651. Somogyi, J. *Begabung im Lichte der Eugenik.* (Giftedness in the light of eugenics.) Leipzig: Deuticke, 1936. Pp. 518. RM. 14.00.—*R. R. Willoughby* (Brown).

3652. Spragg, S. D. S., & Nissen, H. W. *Stylus maze experiments with chimpanzee.* (Silent film.) New York: Instructional Films, Inc., 30 Rockefeller Plaza, 1935. 1 reel, 233 ft., 16 mm., 8 min. \$2.50 rental per use-day; \$27.50 sale.—Produced by Yale Laboratories of Primate Biology. This film shows young chimpanzees at work on spatial and temporal stylus maze problems, as subjects in an investigation of anticipatory responses in serial learning (*Comp. Psychol. Monogr.*, 1936, 13, No. 2). The free cooperation of the animals is exhibited, including working at the maze problems while blindfolded. Certain typical errors are demonstrated, as well as the contrast between early trials and finished performances.—*S. D. S. Spragg* (Yale).

3653. Tolman, E. C. The acquisition of string-pulling by rats—conditioned response or sign-gestalt? *Psychol. Rev.*, 1937, 44, 195-211.—The author uses the string-pulling situation as a basis for comparison of two explanatory theories of learning. The conditioned response explanation is considered inadequate because (1) the learned response in this case is unrelated to the original unconditioned response, (2) the stimuli and responses involved are not physiologically but environmentally defined factors, and (3) mere temporal contiguity is not what causes the learning. The sign-gestalt formula, on the contrary, pictures learning as the formation of new sign-gestalt-expectations or hypotheses, which act as intervening variables between one stimulus-object and another. Such sign-gestalts operate in environmental situations leading to seven types of learning: (1) substitute stimulus, (2) signal, (3) trial and error, (4) a combination of 2 and 3, (5) delayed reaction, (6) inferential, and (7) inventive. The present case is an instance of 7, and involves two laws of learning: (a) that the more frequently and recently the pulling response has been induced, the more likely the new sign-gestalt-expectation is to arise, and (b) the pulling response will be initially induced more readily under certain environmental arrangements.—*A. G. Bills* (Chicago).

3654. Waits, J. V. The law of effect in the retained situation. *Arch. Psychol.*, N. Y., 1937, No. 208. Pp. 56.—The first formulation of the "law of effect" in a precise statement of a psychological principle must be attributed to Thorndike. The purpose of this study was to investigate the relation of learning in the retained situation to that in the vanishing one. The results are: The strengthening effect of rewards, occurring without the interpolation of punishment, was found to be 37% for a single reward, 56% for two rewards, 70% for three rewards, and 75% for four rewards. In multiple-choice situations punishment has little or no value in

furnishing information which the subject may utilize at subsequent trials. Punishment does not cause the elimination of wrong responses. Results of this study were determined under laboratory conditions. The study leaves open the question of what to do if and when the learner makes a mistake. No method of remedial treatment is suggested from these data, but the negative caution is clear that the use of punishment is likely to lead to little or no improvement.—E. M. Achilles (Columbia).

3655. Waskom, H. L. An experimental analysis of incentive and forced application and their effect upon learning. *J. Psychol.*, 1936, 2, 393-408.—It was found that learning to "mirror-trace" a star was greatly facilitated under incentive instructions (promise of reward for high scores) and hindered under forced application instructions. Too close attention to details under the forced-application conditions interferes with the physiological automatisms necessary for control. The diffuse attention secured under incentive instruction is much more efficient. When average-application instructions are given the effects are less harmful.—F. L. Reinwald (Brown).

3656. Weber, P. L. Judgment today. *Psychol. Rev.*, 1937, 44, 264-266.—Reports the returns on a questionnaire on judgment from 80 psychologists. Those who consider judgment a legitimate psychological category assign it characteristics on the basis of which the author evolved the following definition of judgment: "a cognitive reaction initiated by a query, and involving inspection, discrimination, comparison, appraisal, and a degree of belief."—A. G. Bills (Chicago).

3657. Wolfe, J. B. The use of token-rewards in experiments with the chimpanzee. (Silent film.) New York: Instructional Films, Inc., 30 Rockefeller Plaza, 1934. 1 reel, 210 ft., 16 mm., 8 min. \$2.50 rental per use-day; \$27.50 sale.—Produced by Yale Laboratories of Primate Biology. This film record of a widely-known experiment demonstrates the ability of chimpanzees to learn to work for token-rewards which they can exchange for food, drink, or desired activity (*Comp. Psychol. Monogr.*, 1936, 12, No. 5). Poker chips of various sizes and colors, used as token-rewards, came to represent different objects or events and to be employed appropriately as a medium of exchange.—H. W. Nissen (Yale).

[See also abstracts 3618, 3758, 3796, 3800, 3847, 3928, 3935.]

MOTOR AND GLANDULAR RESPONSES

(incl. Emotion, Sleep)

3658. Baumgarten, F. Classification des mouvements manuels d'après l'habileté. (A classification of manual movements according to skill.) *Année psychol.*, 1936, 36, 157-161.—Manual skill is characterized by its efficiency; its movements are directed toward a desired goal, as distinguished from unconscious movements. Five criteria of manual skill are: (1) coordination of movement, (2) adapted

movements, (3) utility, (4) execution with a minimum of time in a minimum of space, and (5) with a minimum of psychophysical energy. Such movements may be classified either in terms of form or kind, such as movements requiring the participation of the hand or fingers, or according to goal, such as movements necessary to change the position of an object in space. A complete classification according to the above categories is given.—E. T. Raney (Brown).

3659. Bergami, G., & Miserocchi, E. Ricerche di elettrofisiologia muscolare. I. L'attività elettrica della singola unità motoria nella contrazione volontaria nell'uomo. II. Le manifestazioni elettriche dell'attività tonica nell'uomo. (Researches on muscular electrophysiology. I. The electrical activity of the single motor unit in voluntary contraction in man. II. Electrical manifestations of tonic activity in man.) *Arch. Sci. biol., Napoli*, 1935, 21, 281-310; 311-319.—With coaxial electrodes one can obtain, at the end of a weak voluntary contraction, action potentials limited to a motor unit of immediately maximal value; the potentials may follow one another rhythmically with a constant value in a weak and sustained contraction. Sometimes the cessation of the potentials comes after a preliminary diminution of frequency, sometimes there is an abrupt stop, sometimes there are irregular preterminal variations. The frequency of the action potentials at the beginning of a weak contraction is from 4-6 to 14-16 per second; increase in frequency is accompanied by increase in strength of the contraction. In repose, with two distant electrodes in the triceps, there is always an electrical activity, while the repose is established with coaxial electrodes. For near electrodes the repose of the subject permits an electrical activity which ceases only when the study of the most complete repose possible is controlled by the hearing of his own action potentials transmitted by a loudspeaker. The postural tonus appears to be related to specific activities, thus revealed in the resting muscle and carried on over reflex pathways without anything distinguishing from the others the action potentials controlling the maintenance of a tonic activity.—(Courtesy *Année psychol.*)

3660. Bills, A. G. Blocking in mental fatigue and anoxemia compared. *J. exp. Psychol.*, 1937, 20, 437-452.—(1) When the oxygen content of the inspired air is reduced by increasing the ratio of nitrogen to O₂, there is produced an increase in the length and frequency of blocks in mental work (color naming) which is proportional to the amount of reduction of oxygen. (2) An hour's continuous mental work (color naming) in normal air produces an increase in the length and frequency of blocks which is comparable to that produced by reducing the oxygen content of the air to 10.5 percent. (3) No marked change is produced in the modal response of subjects either by anoxemia or an hour of continuous mental work. (4) The rate of development of fatigue, as indicated by the rate of increase in blocking, is much greater under the anoxemia conditions than under normal air. These conclusions give some corro-

borative evidence for the theory that the physiological basis of mental fatigue is, in part at least, a reduction of the available oxygen supply to the functioning mechanisms.—*H. W. Karn* (Pittsburgh).

3661. **Bills, A. G.** Facilitation and inhibition in mental work. *Psychol. Bull.*, 1937, **34**, 286-309.—Review of literature on four major problems: the mechanics of effort, the dynamics of effort, the effects of extraneous or adventitious stimuli on mental performance, and the facilitative and inhibitive effects of mental performance on itself.—*R. H. Brown* (Yankton).

3662. **Bonnardel, R., & Néoussikine, B.** Étude sur la conductibilité électrique du corps humain. (A study of the electrical conductivity of the human body.) *Travail hum.*, 1937, **5**, 55-88.—Alternating current at commercial frequency was used, with large electrodes covered with felt moistened in sodium chloride. With the voltages studied, (not over 100) current is not a simple function of voltage. The results vary with the different parts of the body and with different individuals. Conductivity is usually greater after doing physical work. Acts of attention produced slight increases in conductivity. Distance between electrodes, skin pigmentation, and age had little effect. Correlations between different parts of the body of the same subjects or between the same subjects at different times are not very high. The article recommends that subjects with extremely low conductivity be not placed in occupations where contact with high voltage is possible.—*H. E. Burtt* (Ohio State).

3663. **Copelman, L.** L'élément affectif à la base du réflexe psychogalvanique. (The affective element underlying the psychogalvanic reflex.) *Année psychol.*, 1936, **36**, 119-136.—In this research the decrease in the initial resistance of the subject at the beginning of a test for the psychogalvanic reaction was measured on successive occasions. On one occasion a series of ten tests was made after the subject had heard a loud noise, or had changed his attitude by blinking his eyes. In the three situations the decrease in resistance became progressively less. This phenomenon is attributed to the surprise element in the situation, and consequently it is thought that the affective element plays a more preponderant role in the psychogalvanic reaction than do intellectual or other phenomena.—*E. T. Raney* (Brown).

3664. **Devaux, E.** L'énigme de la faculté d'orientation pour les distances lointaines. (The puzzling question of the faculty of orientation for long distances.) *Rev. gén. Sci. pur. appl.*, 1936, **47**, 463-467.—After a review of various observations made on animals and humans, the author states his view, namely, that in certain specially endowed individuals belonging to quite different species the animal organism is able to act as a living compass. Thus the animals are able to orientate themselves during long journeys and can maintain a determined direction. This orientation faculty may be due to a peculiar physical source of knowledge.—*M. H. Piéron* (Sorbonne).

3665. **Dill, D. B., & Brouha, L.** Étude sur le rythme cardiaque pendant l'exercice. Ses rapports avec l'âge et l'entraînement. (The cardiac rhythm during exercise. Relation to age and training.) *Travail hum.*, 1937, **5**, 1-17.—Pulse records were taken with the subject walking on a treadmill or running upgrade. There were no significant age differences between 12 and 25. Athletic training does not produce a comparative change in acceleration at the outset of work. The maximum heart rate while doing strenuous work is mostly between 190 and 200. These maxima are less frequent beyond the age of 25.—*H. E. Burtt* (Ohio State).

3666. **Dobreff, M., Peneff, L., & Wittkower, E.** [The effect of emotion on the blood cholesterol.] *Z. ges. exp. Med.*, 1936, **98**, 428-431.—Anxiety increases the cholesterol contents of serum. Samples taken during hypnosis are usually lower and those just before operation higher than controls.—(Courtesy *Child Developm. Abstr.*)

3667. **Ducuing, J., & Ducuing, L.** La déglutition. (Swallowing.) *Rev. Laryng., Paris*, 1934, **55**, 673-765.—The first phase of swallowing, in the isthmus of the throat, may be voluntary or reflex, with the reflexogeneous zone in the anterior part of the soft palate in the trigeminal area. The terminal phase, in the esophagus, may be controlled by weight alone. The most important phase is that of the laryngopharyngeal passage, with propulsion toward the digestive tube and protection of the air passages, a purely reflex phase. The stroke of the pharyngeal pump depends upon constrictor muscles, especially the mylohyoid. The protection is subordinated, being less at the depression of the epiglottis (making an operculum) than at the rise of the laryngeal horn under the base of the tongue. First there is elevation of the pharygo-larynx, then a bending of the epiglottis, then naso-pharyngeal occlusion, and last, laryngeal closing.—(Courtesy *Année psychol.*)

3668. **Eichler, W., & Hoffmann, P.** Die Veränderung der Form der Aktionsstromkurve des menschlichen Muskels durch die Ermüdung. (The change in form of the curve of action currents in the muscle of man under the influence of fatigue.) *Z. Biol.*, 1935, **96**, 374-380.—The diphasic wave of the normal muscle is distorted when the muscle is fatigued, the second phase being diminished and prolonged. This ought to point to a lengthening of the two inverse curves, the resultant of which is recorded.—(Courtesy *Année psychol.*)

3669. **Forster, M. C., & Nissen, H. W.** The measurement of reaction-time in chimpanzee. (Silent film.) New York: Instructional Films, Inc., 30 Rockefeller Plaza, 1934. 1 reel, 280 ft., 16 mm., 9 min. \$2.50 rental per use-day; \$27.50 sale.—Produced by Yale Laboratories of Primate Biology. The chimpanzee does not differ markedly from man in speed of response to simple stimuli. Apparatus and procedure for the measurement of chimpanzee reaction-time, and also the cooperative behavior of the subjects, are exhibited by this film.—*H. W. Nissen* (Yale).

3670. Glover, P. Congenital nystagmus. *Arch. Ophthalm., Chicago*, 1937, 17, 705-706.—A genealogy is given showing inheritance of congenital nystagmus frequently associated with head nodding or tilting in the earliest years. The grandfather was one of seven sons all of whom had congenital nystagmus. None of his children was affected, but three of his four daughters had sons with the defect (five of the seven grandsons). Two of the granddaughters also have sons with the defect. Apparently inheritance is through the maternal line with only males affected. Two cases in the family are reported in detail.—*M. R. Stoll* (Mass. Eye & Ear Infirmary).

3671. Heimsoth, F. A. Über die "Reizzeit" rechteckiger galvanischer Stromstösse verschiedener Stärke. (The stimulation time of rectangular electric shocks of different strengths.) *Z. Biol.*, 1935, 96, 459-466.—(*Biol. Abstr.* XI: 6004).

3672. Hines, E. A. Reaction of the blood pressure of 400 school children to a standard stimulus. *J. Amer. med. Ass.*, 1937, 108, 1249-1250.—The pressor response was produced by placing the hand of the subject in ice water at 4° C. to a point just above the wrist. The age range of the subjects was from 6 to 19 years. 18% of the children had hyperreactions in the systolic and diastolic pressures. The reaction of the blood pressure to this stimulus increases during the prepuberty and puberty periods, but the incidence of hyperreactors was about the same at each age level. Six pairs of identical twins were tested. The basal readings and responses to the test were almost identical in each pair.—*D. J. Ingle* (Mayo Foundation).

3673. Lawson, H., & Holt, J. P. The control of the large intestine by the decentralized inferior mesenteric ganglion. *Amer. J. Physiol.*, 1937, 118, 780-785.—Evidence for independent sympathetic ganglionic activity in mammals rests on acute experiments in which operative traumata may have acted as stimuli. In the study here reported the spontaneous motility of the colon in the unanesthetized dog was used to indicate activity of the inferior mesenteric ganglion. The data are therefore indirect, but avoid difficulties from exposure of the ganglion. Balloon and manometer recording was employed. In 3 animals control records were run for 30 days, decentralization was accomplished by dividing the spinal rami of the ganglia, and records again run for 2 to 4 weeks. In 6 animals the previously decentralized ganglia were removed by dividing hypogastric and lumbar colonic nerves. Anatomic removal was impractical. Increased amplitude in two segments was striking. The effect was immediate and therefore not due to sensitization by fiber degeneration. Careful examination of one animal seemed to show complete decentralization. It is concluded that control of the colon by the decentralized ganglia is probably due to nervous activity in the ganglion.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

3674. Magoun, H. W., Atlas, D., Ingersoll, E. H., & Ranson, S. W. Associated facial, vocal and

respiratory components of emotional expression: an experimental study. *J. Neurol. Psychopath.*, 1937, 17, 241-255.—Coordinated facial and vocal activity, closely resembling that during the expression of unpleasant emotion by normal animals, was obtained in response to electrical stimulation of two localized areas (1) in the midbrain and pons, and (2) in the anterior portion of the hypothalamus, of lightly anesthetized monkeys and cats. The presence of the response in acutely decerebrated cats demonstrated that the effects are independent of afferent projections to the thalamus or cerebral cortex. It is concluded that within the reactive areas is contained an efferent pathway for coordinated facial, vocal and respiratory activity during the expression of emotion.—*D. G. Marquis* (Yale).

3675. McDougall, W. Organization of the affective life. A critical survey. *Acta Psychol., Hague*, 1937, 2, 233-346.—The contributions of various German, French, British, and American psychologists to the psychology of affective organization are critically reviewed in relation to the following ideas and principles: (1) one of the most important tasks of psychology is the study of affective organization, a field of investigation overlooked until recently; (2) recent contributions to this field may be brought together into a broad consistent viewpoint; (3) in order to study affective organization properly, it should be distinguished from cognitive structure; (4) affective processes are distinguishable from although not independent of cognitive functions.—*K. U. Smith* (Rochester).

3676. Parnall, E. Hereditary prance-gait. *J. Amer. med. Ass.*, 1937, 108, 1258-1259.—Five members of a family of seven exhibited a "peculiar prancing, high stepping gait." Examination showed paralysis of both anterior tibial muscles.—*D. J. Ingle* (Mayo Foundation).

3677. Pelseneer, P. Essai d'éthologie zoologique d'après l'étude des mollusques. (Attempt at zoological ethology based upon a study of the Mollusca.) Brussels: Palais des Académies, 1935. Pp. 662.—The author has studied the larger functions in the mollusks: alimentary, respiratory, circulatory, excretory, reproductive, neurosensory, and the comparative behavior (especially protective) in the different groups, genera, and species. Part III deals with sensory and nervous activity; with tactile, thermal, chemical, static and photic sensitivities; with reflexes; and with psychic activity. There is a detailed and complete bibliography, with dates.—(Courtesy *Année psychol.*)

3678. Petersen, W. F. The patient and the weather. Vol. IV, Part I: Organic disease. Ann Arbor, Mich.: Edwards Bros., 1937. Pp. xxiv + 663. \$10.00.—One in a series of monographs on the effect of meteorological conditions on disease. In this volume the author is primarily interested in the demonstration of the fact that organic disease may originate from subminimal environmental stimuli. Numerous graphs, photographs, tables, etc. Bibliography.—*D. Shakow* (Worcester State Hospital).

3679. Piaget, J. *Les théories de l'imitation.* (Theories concerning imitation.) *Cah. Pédag. exp.*, 1935, No. 6. Pp. 13.—In agreement with Guillaume, Piaget rejects the hypothesis of Le Dantec concerning the hereditary relation between perceptions of the model and of motor rhythms of reproduction. Imitation does not appear as an instinct; in order to occur, it needs only perceptive assimilation. "Imitation may be considered as a differentiation of assimilation in the sense of accommodation as such."—(Courtesy *Année psychol.*)

3680. Piel, R. P. O. *Recherches biologiques sur les hyménoptères du Yang-Tsé (Chine).* (Biological studies on the hymenoptera of the Yangtze.) *Amic. Soc. ent. Fr.*, 1935, 104, 273-306.—The article deals with the biology of *Sphex*. The author describes the wasp's behavior with prey, the action of the stinging apparatus, its search for prey which has been removed, transportation of prey, and the sensory processes used in its return to the nest. Bibliography.—*M. H. Piéron* (Sorbonne).

3681. Rabaud, E. *Notes sur le comportement maternel de Pisaura mirabilis.* (Notes on the maternal behavior of *Pisaura mirabilis*.) In *Various, Livre jubilaire de E. L. Bouvier*. Paris: Firmin Didot, 1936. Pp. 93-96.—*Pisaura mirabilis* is a spider which supports its egg-bearing sac with its chelicerae in front of the buccal orifice. It also collects egg sacs which it happens to find. Common opinion has been that the spider exposes itself to the sun during the warm hours of the day in order to subject the eggs to a high temperature as an aid to incubation. However, the author found that the behavior of the spider was the same regardless of the egg-bearing period, that is, whenever the temperature was sufficiently raised it would climb on a leaf and remain immobile in the sun.—*M. H. Piéron* (Sorbonne).

3682. Rathbone, J. L. *Residual neuromuscular hypertonus.* *Med. Rec.*, N. Y., 1937, 145, 418-421.—A four-year study of residual neuromuscular hypertonus was made at the physical education clinic of Teachers College, Columbia University, with particular attention to possible causal relationships of peculiarities and defects of physical appearance, poor posture, height and weight relationships, endocrine disorders, dietary habits, digestive and circulatory disturbances, generalized and focal infections, drug usage, pain, emotional disturbances and excessive activity. The direct cause is considered to be static muscular contraction of various sources. The author concludes with general therapeutic considerations.—*M. H. Erickson* (Eloise Hospital).

3683. Rigaud, P. *Le labyrinthe. Etude physiopathologique.* (The labyrinth: a physiopathological study.) Paris: Baillière, 1935. Pp. 522. 25 fr.—*M. H. Piéron* (Sorbonne).

3684. Skard, Å. G. *Studies in the psychology of needs: observations and experiments on the sexual need in hens.* *Acta Psychol.*, Hague, 1936, 2, 175-232.—Experiments concerning sexual needs in

chickens were made with reference to the hypothesis held by D. Katz to the effect that similar laws apply to all needs and that strength of needs results from an external and an internal component. Preliminary observations established the nature of sexual preference, daily rhythm, and the influence of temperature and weather on sexual behavior. Among other facts the following general tendencies in behavior were observed: increase in activity above normal occurs temporarily after deprivation; the daily rhythm may be modified temporarily by deprivation; sexual appetite increases with the number of opportunities afforded for satisfying it; demand for quality decreases with increase in need-strength; partial over-satisfaction occurs if opportunities are provided for repeated satisfaction; introduction of new hens to cocks in a period of over-satisfaction does not increase the need-strength; frequent changing of hens increases the sexual appetite of cocks; the close presence of another male does not increase the sexual appetite in cocks; needs for freedom and food decrease the sexual appetite. These factors are similar to those which have been found by D. Katz to be involved in the need for food.—*K. U. Smith* (Rochester).

3685. Steiman, S. E. *Factors determining the type of response in the fiber of striated muscle.* *Amer. J. Physiol.*, 1937, 118, 492-504.—Single fibers in the retrolingual membrane of *Rana pipiens* were used, and it was found possible to produce local responses with electrodes at a distance from the fiber. A fatigued fiber would give local responses, and also one in Ringer to which 0.028 g KCl per 100 cc. had been added. It is held that these results oppose certain previous views, since the fresh normal fiber response is always maximal. It is suggested that normally the local contraction is integrated with others, but that it appears as a separate entity when the conducted disturbance is deranged.—*T. W. Forbes* (Harvard Bureau of Traffic Research).

3686. Thomas, M. *A propos de la variabilité de l'instinct.* (Regarding the variability of instinct.) *Rev. Quest. sci.*, 1935, July, 93-115.—Answering criticisms of Rabaud and Hingston on the non-variability of instinct, the author goes back to the ideas of Fabre, which he accepts in entirety. Fabre denies the variability of instinct, but admits that there is variability in certain actions in insects, which base their behavior on the necessities of the moment. Account must be taken of two different factors: that of pure instinct, which is rigid and immutable; and that of discrimination, which is a lower form of intelligence and is therefore variable. The author reviews certain facts of instinctive variability (variations in degree of paralysis in the prey of Hymenoptera, in the number of prey, species chosen, placing of the egg on the victim, etc.) as described by Hingston, and shows how they actually bear out Fabre's theory.—(Courtesy *Année psychol.*)

3687. Walshe, F. M. R., & Hunt, J. H. *Further observations upon grasping movements and reflex*

tonic grasping. *Brain*, 1936, 59, 315-323.—Clinical evidence is adduced to show that in the phenomena of "forced grasping" the component of voluntary grasping in response to objects seen or felt is determined by mental factors and cannot properly be called reflex, while the component of reflex tonic grasping is exclusively a proprioceptive reflex reaction to stretch. No evidence was obtained of any interaction between either of these components and the righting reflex mechanism of Magnus and de Kleijn.—D. G. Marquis (Yale).

3688. Winter, A. Experimentelle Untersuchungen über die Motorik von Hilfsschülern. (Experimental investigations on motor function in opportunity-school pupils.) *Arch. Kinderheilk.*, 1937, 110, 129-149.—Oseretzky's tests for motor function (1929) were applied for the first time in Germany and specifically to children in opportunity schools, for the purposes of vocational guidance and the clearer differentiation of the forms of mental defect. Some of the tests which were unsuited to German conditions were replaced by others. How far the norms for Russian children hold also for the average of German children is not discussed, since the poorer performances of the opportunity-school pupils were obvious.—P. L. Krieger (Leipzig).

3689. Zador, J. Über Haltungsreflexe und Störungen der Stellfunktion bei einer posttraumatischen Hirnstammaffektion. (Concerning postural reflexes and disturbances of the postural function in a post-traumatic brain-stem lesion.) *Mschr. Psychiat. Neurol.*, 1937, 95, 65-101.—P. L. Krieger (Leipzig).
[See also abstracts 3522, 3532, 3546, 3560, 3567, 3571, 3574, 3578, 3588, 3604, 3620, 3624, 3637, 3646, 3720, 3725, 3780, 3791, 3799, 3800, 3831, 3838, 3850, 3928, 3933, 3936, 3946.]

PSYCHOANALYSIS, DREAMS, HYPNOSIS

3690. Alexander, F. Psychoanalysis and social disorganization. *Amer. J. Sociol.*, 1937, 42, 781-813.—Social processes consist of the interaction of biologically independent individuals. This interaction can be described and understood only in terms of psychology. Hence sociology and the psychology of the individual belong close together. Yet sociology and psychology developed independently. Recently recognition of the necessity of integration of both disciplines is increasing. The first attempts at applying a psychological point of view in sociology and a sociological point of view in psychology are characterized by grave methodological errors. One of these errors may be called "psychoanalyzing society"; another, "the sociological point of view in psychiatry." Demonstration of the fallacies contained in these two procedures is made. A correct application of psychoanalytic concepts to sociology is proposed. The historical-cultural-economic understanding of social situations should be combined with the knowledge of emotional mechanisms according to which individuals react to their social situation. The practical significance of

psychoanalytic knowledge for the solution of actual social problems is suggested, demonstrating that neurotic mechanisms (primarily projections) aggravate those emotional tensions between individuals, classes, and nations that exist on the sociological basis of their clashing interests.—(Courtesy *Amer. J. Sociol.*)

3691. Alexander, F. Psychoanalytic aspect of mental hygiene and environment. *Ment. Hyg., N. Y.*, 1937, 21, 187-197.—According to the psychoanalyst, mental hygiene depends on a precise knowledge of environmental influences upon normal and pathological development. He deals in culture milieus and finds a universal homogeneity of the emotional structure of man. Every individual develops gradually from a biologically and socially dependent creature into a more or less independent human being who has to take care of his own existence and becomes responsible for the care of others. Regressive tendencies are present in everyone, and are increased by the hardships of existence. Every neurosis or psychosis is essentially a regressive process. There is need for a better integrated social order to diminish mutual hostilities of its members, yet this social order is dependent on greater mutual solidarity of the individual. The origin of these fears and hostilities is in early childhood development. The function of mental hygiene is to encourage research into the nature of those factors of childhood which create fears and hostilities and to enable progress toward a more harmonious social order.—P. Brand (Children's Village, N. Y.)

3692. Christoffel, H. Bemerkungen über zweierlei Mechanismen der Identifizierung (im Anschluss an G. H. Graber). (Observations on the two mechanisms of identification; in agreement with G. H. Graber.) *Imago, Lpz.*, 1937, 23, 49-62.—The author agrees with Graber as to the basic significance and ubiquity of the phenomenon of identification. The passive mechanism is treated, however, more in terms of projection, which may be interpreted as an important part of the process where identification is the leading activity. Identification, interpreted as a rhythmic activity in more than one individual, appears to provide some explanation of certain forms of "telepathic" communication.—H. D. Spoerl (American International College).

3693. Flournoy, H. Rêves d'angoisse stéréotypés chez un agoraphobe. (Stereotyped anxiety dreams in an agoraphobia patient.) *Evolut. psychiat.*, 1935, 3, 35-45.—M. H. Piéron (Sorbonne).

3694. Freud, S. Moses ein Ägypter. (Moses an Egyptian.) *Imago, Lpz.*, 1937, 23, 5-13.—There exists some evidence, mainly philological, which points to the probability that Moses was an Egyptian. Acceptance of this view would enable one "to comprehend the possible origins of the numerous qualities and peculiarities of the laws and the religion he gave to the Jewish people." The hypothesis, which is seemingly not open to positive proof, is further supported by the standard form of myths concerning Moses. These commonly accepted

accounts fit the schema worked out by Rank and others for interpreting the myth of the birth and rise of a great leader.—*H. D. Spoerl* (American International College).

3695. Garma, A. *Psychologie des Selbstmordes*. (Psychology of suicide.) *Imago, Lpz.*, 1937, 23, 63-95.—The basis of suicide is identification with the loss of a love object, expressed in terms of aggression. "The suicide is trying to make the loss of the love object psychically revocable." Thus suicide represents the seeking not of death, but of a mode of life. The classification of different processes leading to suicidal acts shows that somewhat different courses may be followed. Both a constitutional factor and unfavorable environmental conditions are generally assumed. In some cases the critical mechanism is the turning back of aggression (toward the environment) upon oneself; in others, it is simple identification with the object. Some of the evidence is taken from suicides contemplated but not successfully carried out.—*H. D. Spoerl* (American International College).

3696. Graber, G. H. *Die zweierlei Mechanismen der Identifizierung*. (The two mechanisms of identification.) *Imago, Lpz.*, 1937, 23, 24-48.—Identification consists of two mechanisms, each of which has an ambivalent character. The "more active" mechanism is introjection; the "more passive" is empathy (*Einfühlung*). In general, the attitude and affect appropriate to the former is aggression, while that appropriate to the latter is love. But their ambivalent character is evident. Both mechanisms may have the result of "partial" identification. Emphasis is put upon identification in psychoanalytical situations. The twofold mechanism is the motive and basis for all perception.—*H. D. Spoerl* (American International College).

3697. Grotjahn, M. *The relation of child analysis to education*. *Bull. Menninger Clin.*, 1937, 1, 184-191.—The differences in personality structure between neurotic child and neurotic adult lead the author to believe that the process of analysis must be modified for the child. Although the prospect of success in child analysis seems favorable at first glance, the immaturity of ego and super-ego formations constitutes a great difficulty for analysis in the home. Since these same factors are advantageous for education, it is argued that the psychoanalysis of children should be undertaken in specially instituted schools.—*J. F. Brown* (Kansas).

3698. Hyman, H. T. *Value of psychoanalysis as a therapeutic procedure*. *Arch. Neurol. Psychiat.*, Chicago, 1937, 37, 449-459.—An analysis was made of the therapeutic results in 43 patients referred to various leading psychoanalysts for treatment. Of 15 patients with profound psychiatric diseases (6 manic-depressive psychosis, 5 schizophrenia, 2 homosexuality, 1 constitutional inferiority, and 1 chronic alcoholic addiction) 12 were failures in treatment, 2 were incompletely treated, and 1 (homosexuality) showed a brilliant cure. Of the 28 patients suffering from hysteria, anxiety states, mild de-

pression, phobias and obsessions, impotence and frigidity, hypochondriasis, etc., 4 experienced remarkable cures, 13 were distinctly benefited, and 11 experienced no benefit. The paper is discussed at length by Bernard Sachs, Israel Wechsler, A. A. Brill, L. S. Kubie, and Israel Strauss.—*D. G. Marquis* (Yale).

3699. Karpf, F. B. *Dynamic relationship therapy: II. The Jungian and Adlerian backgrounds*. *Soc. Work Technique*, 1937, 2, 107-117.—Continuing her discussion of the psychotherapy of Otto Rank as related to other schools of psychotherapy, the author in this article reviews Jung's analytical psychology and the individual psychology of Adler. The theories and therapeutic approach of Jung and Adler are compared with those of Freud.—*M. Keller* (Brown).

3700. Knight, R. P. *Psychoanalysis of hospitalized patients*. *Bull. Menninger Clin.*, 1937, 1, 158-167.—Psychoanalysis may be carried out in a sanitarium on types of patients who could not be treated in private practice. Such cases are anti-social character disorders, chronic drug and alcohol addiction, schizoid patients, manic-depressive patients with suicidal inclinations, etc. The difficulties and disadvantages of psychoanalysis in the hospital are believed "to be due more to the severity of the acting out and of the neurotic or psychopathic character disorder in those patients for whom institutionalization is necessary than to any inherent, ineradicable disadvantages in carrying on psychoanalytic treatment in an institutional environment."—*J. F. Brown* (Kansas).

3701. Marinesco, G., Sager, O., & Kreindler, A. *Etudes électro-encéphalographiques. Le sommeil naturel et le sommeil hypnotique*. (Electro-encephalographic studies. Natural sleep and hypnotic sleep.) *Bull. Acad. Méd., Paris*, 1937, 117, 273-276.—Studies were made on a subject who could fall into such a profound sleep that he would not awaken when given a local skull anesthetic or when the needles were injected as far as the cranial perosteum. His electro-encephalogram had the following characteristics: there was a frequency of 9 to 10 Hertz interspersed with periods of one or two seconds during which the Berger rhythm was completely lacking. The potential of these waves varied from 5 to 26 millivolts and certain ones reached 46 millivolts. The authors believe that an inhibition of the cerebral cortex is present during sleep, a fact which is indicated by a diminishing of the electric potential, a diminution which is proportional to the depth of the slumber. In the case of sleep caused by an injection of pernocton, that is, by the physiological exclusion of the vegetative centers which govern the sleep function, there is found an increase in the wave potential. In the case of hypnotic sleep, there was found first a passing phase of augmentation of potential and wave frequency, and then a decided diminution in both potential and frequency.—*M. H. Piéron* (Sorbonne).

3702. Mayer, F. *Die Struktur des Traumes.* (The structure of the dream.) *Acta Psychol., Hague*, 1937, 3, 81-137.—By means of experimental procedure in psychology it is possible to discover the nature of gesture-language, which constitutes a form of communication with oneself, as well as the character of thinking occurring in the deepest course of dreaming. That such communication exists is indicated by the fact of loss of function in certain categories of day-consciousness with increasing depth of dream. Since the laws of identity and of cause and effect do not operate in the dream, these ideas explain the fleetness and changes in vision during this state. Gesture-language posture increases with sleep-depth (dream-depth). The contents of the dream, which frequently occur in antithetical series, can therefore be given a position on a curve according to the predominance of sound-gesture thinking (metaphor) or gesture-language thinking (symbol). The gesture-language posture has effects peculiar to passion in waking life. Religious-mythological and artistic-universal ideas have as an important background the enfeebled criticism of certain thinking categories and gesture-language.—K. U. Smith (Rochester).
3703. Menninger, K. A. *Organic suicide.* *Bull. Menninger Clin.*, 1937, 1, 192-198.—It is argued that many of the problems of internal medicine are complicated by the self-destructive components of the Freudian aggressive urge. Today it is recognized that conscious attempts at suicide are problems for the psychiatrist. The author believes that many organic diseases may be unconscious partial suicides. Consequently, "it may be that the future textbook of medicine will consist of a systematic inquiry into the relative importance of the external, environmental factors and the internal, emotional factors responsible for the incidence of every physical disease. This will only be possible as a result of continued cooperative researches by internists and psychiatrists which are becoming increasingly numerous."—J. F. Brown (Kansas).
3704. Menninger, W. C. *Psychoanalytic interpretations of patients' reactions in occupational therapy, recreational therapy, and physiotherapy.* *Bull. Menninger Clin.*, 1937, 1, 148-157.—The patients mentioned are undergoing psychoanalysis. "It is hoped that eventually sufficient data can be obtained which may serve as a guide in constructing a more adequate explanation for the reactions of patients not undergoing analysis. From such an understanding it should be possible to prescribe more accurately the specific therapy designed to meet unconscious emotional needs."—J. F. Brown (Kansas).
3705. Payne, S. M. *Nachkriegsbestrebungen und der Fortschritt der Psychotherapie.* (Post-war activities and the advance of psychotherapy.) *Imago, Lpz.*, 1937, 23, 96-114.—Translation of X: 4505.—H. D. Spoerl (American International College).
3706. Reik, T. *Das Kind im Manne.* (The child in the man.) *Imago, Lpz.*, 1937, 23, 14-23.—Interpretations of humor in the case of two famous men, the painter Josef Israels and the poet Heine (from the author's collection "The Distant Echo"), reveal their use of humor to express infantile reverberations. The principle invoked is that "the mechanism of wit consists in making unconscious processes conscious by various means." An interesting complication of Heine's case is provided by its setting: his relations with the mentally childish and undeveloped Mathilde.—H. D. Spoerl (American International College).
3707. Reiss, S. *Die Anwendung der individual-psychologischen Therapie als Problem.* (The use of individual psychology therapy as a problem.) *Int. Z. Individ.-Psychol.*, 1937, 15, 4-17.—After an illustrative case history of a tubercular patient deserted by her philandering husband, desiring only death, but cured physically after psychological treatment had given her a constructive life goal, the author concludes that psychological therapy is worth while even for patients whose organic diseases seem hopeless.—M. F. Martin (West Springfield, Mass.).
3708. Simmel, E. *The psychoanalytic sanitarium and the psychoanalytic movement.* *Bull. Menninger Clin.*, 1937, 1, 133-143.—Simmel gives a report of the activities at the psychoanalytic sanitarium which he founded at Berlin-Tegel, some ten years ago, and which existed some five years. He sees the continuation of his idea at the Menninger Clinic, Topeka, Kansas. Certain problems arising in the psychoanalysis of hospitalized patients are touched upon. The attitude of Freud toward the psychoanalytic hospital is given.—J. F. Brown (Kansas).
3709. Tidd, C. W. *Increasing reality acceptance by a schizoid personality during analysis.* *Bull. Menninger Clin.*, 1937, 1, 176-183.—This is the case of a schizoid personality seemingly in danger of developing an acute schizophrenia, who responded favorably to analysis and is now better able to accept reality. The patient is by profession a writer of bizarre stories, and the course of the analysis is controlled by the changing form and content of the stories produced.—J. F. Brown (Kansas).
3710. Versteeg-Solleveld, C. M. *Das Märchen vom Marienkind.* (The story of the Virgin's founding.) *Imago, Lpz.*, 1937, 23, 115-124.—An analysis of the story of the child reared by the Virgin Mary who was punished for refusal to confess disobedience, and rescued at the last minute on relenting. The trend of the tale, with its symbols and identifications, signifies a prohibition of sexual activity to preadolescent girls. This warning is unconsciously appreciated by children hearing the story.—H. D. Spoerl (American International College).

[See also abstracts 3757, 3837.]

FUNCTIONAL DISORDERS

3711. Adler, A. *Psychiatric aspects regarding individual and social disorganization.* *Amer. J.*

Sociol., 1937, 42, 773-780.—All personal disorganization is a sign of lack of preparedness in social interest. Individual psychology has shown the individual as a whole, expressing his special "style of life," as a unit related to the problems of social contact, occupation, and love and marriage. Human life expresses itself in movement and direction toward a successful solution of outer and inner confrontations. The "style of life" of an individual is wholly accomplished in the child at an early age. Failures never deteriorate in their style; the degree of social interest, ability, and cooperation and contribution are never diminished. There are two ways of decreasing failures among individuals: one is by diminishing the burden and the confrontations put upon the individual and the masses; the other is by creating a new institution for increasing the social interest during the time of childhood. Our aim should be to make the schools the center of social progress.—(Courtesy *Amer. J. Sociol.*)

3712. Allen, C. N. Psychological factors in continuous bath hydrotherapy for psychotic patients. *J. abnorm. soc. Psychol.*, 1937, 31, 418-422.—From several examples given by medical staff and by patients it is indicated that the psychological factors in continuous bath hydrotherapy are not yet clearly known. Discovery of them awaits a series of planned researches by trained psychologists who can offer hospitals an objective understanding of the problem.—C. H. Johnson (Boston Psychopathic Hospital).

3713. Atkin, I. Serum calcium in the psychoses. *Lancet*, 1936, 232, 439-440.—The concentration of calcium in the blood serum tends to be slightly elevated in schizophrenia, lower than normal in the depressed phase of the manic-depressive group and higher than normal in the excited phase, higher than normal in the epileptic states and of average value in dementia paralytica.—D. J. Ingle (Mayo Foundation).

3714. Beringer, K. Erfahrungen mit der Einführung der Beschäftigungstherapie in der Klinik. (Experiences with the introduction of occupational therapy in the clinic.) *Allg. Z. Psychiat.*, 1937, 105, 156-177.—A report on the beneficial influence of occupational therapy in the Freiburg Psychiatric Clinic.—P. L. Krieger (Leipzig).

3715. Boss, M. Die Grundprinzipien der Schizophrenietherapie im historischen Rückblick. (The basic principles of schizophrenia therapy in historical retrospect.) *Z. ges. Neurol. Psychiat.*, 1937, 157, 358-392.—All the various forms of treatment for schizophrenia are founded on two opposing principles. The first appeals directly to the still remaining life-urge to reorganize the personality. The second attacks only reversible disturbances or at least serious threats to the vital powers. Most of the modern methods combine both principles, although in different relationships to each other.—P. L. Krieger (Leipzig).

3716. Bradway, K. P. Hysterical mutism in a mongol imbecile. *J. abnorm. soc. Psychol.*, 1937, 31,

458-462.—Betsy, a mongolian girl, became mute when she was 26 years old and remained mute for a period of four years, at the end of which time she completely regained the use of her voice. The unanimous opinion of three physicians who examined her during the period of mutism was that there was no physiological reason for her not talking. Statements taken from various authoritative accounts on the nature of hysteria and hysterical mutism were compared with her case history; sufficient similarity was found to warrant classifying her mutism as hysterical.—C. H. Johnson (Boston Psychopathic Hospital).

3717. Brander, T. Om betydelsen av partus praematurus för uppkomsten av vissa cerebrala affektioner, med särskilt beaktande av svårare och lättare grader av exogent betingad underbegrävnig. (On the importance of premature birth for the origin of certain cerebral affections, with special reference to heavier and lighter degrees of exogenously conditioned inferior endowment.) *Finska Läkaresk. Handl.*, 1937, 50, 134-151.—This article will be published shortly in German in *Acta psychiat. neurol.*—M. L. Reymert (Mooseheart Laboratory for Child Research).

3718. Burrow, T. The law of the organism. A neurosocial approach to the problems of human behavior. *Amer. J. Sociol.*, 1937, 42, 814-824.—Behavior disorders, whether individual or social—the psychoneuroses, crime, war, and similar manifestations—are the outer, secondary expression of disturbances in internal physiological tensions that are organismic and that characterize the race of man as a species. These internal tensional aberrations, whether studied ontogenetically or phylogenetically, are found to relate specifically to discrepancies in the organism's neuromuscular patterns or configurations. The pattern or configuration that underlies man's symbolic system (his metaphor or language) has substituted a basis of motivation or behavior that is throughout allegorical. This overtly vicarious mechanism, which now functions interindividually or socially, tends to replace the basis of behavior that primarily motivates the organism of man as a biologically unitary phylum. Man's need is the acquirement of the capacity to differentiate between these conflicting tensional patterns as they may be rendered objectively discriminable within him through the application of an appropriate biophysical technique.—(Courtesy *Amer. J. Sociol.*)

3719. Clarke, E. K. Coordination of pediatrics and psychiatry in the medical school. *Proc. Conf. psychiat. Educ.*, 1936, 40 ff.—Clarke describes the teaching of psychiatry at the University of Rochester. There is a child guidance clinic as a subdivision of the division of psychiatry in conjunction with the department of pediatrics. In this way there is cooperation between the two departments. The staff member in charge of child guidance makes rounds of the pediatric wards with the third-year medical student.—(Courtesy *Child Developm. Abstr.*)

3720. Clegg, J. L. Some observations on endocrines in the emotional psychoses. *J. ment. Sci.*, 1937, 83, 52-60.—200 male patients, half schizophrenic and half manic-depressive, were examined for evidence of endocrine differences. The examination included measures of stature and bigonial index, and judgments by a single observer as to muscular development, hair development, and texture of skin. The schizophrenics as a class showed evidence of hypogonadism dating from the growth period; the manic-depressives frequently showed pituitary deficiency of late onset. The author suggests a relationship of his findings to Kretschmer's types. Photographs and a brief bibliography are included.—C. J. Herrick (Pennsylvania).

3721. Crothers, B. Coordination of pediatrics and psychiatry in the medical school. *Proc. Conf. psychiat. Educ.*, 1936, 45 ff.—Crothers feels that the coordination of psychiatry and pediatrics has not been successfully accomplished. In the development of medicine the art which has to do with the understanding of people gave way to laboratory research, and the former was taken over by social service workers and psychiatrists. This has not, however, relieved physicians of the responsibility. A great advancement would be accomplished if the art of medicine could be combined with the valid scientific technic which has been developed for dealing with mental health. The broader concept of pediatrics, which takes the patient from birth to maturity and includes physical and mental care of the child and the consideration of parental attitudes and problems, requires a large amount of technical knowledge. At the Children's Hospital in Boston various specialists are consulted, with the idea that this is a more adequate method of dealing with pediatric problems.—(Courtesy *Child Developm. Abstr.*)

3722. Davies, S. P. Psychiatric resources from the standpoint of social agencies. *Ment. Hyg., N. Y.*, 1937, 21, 255-262.—It is often necessary, in problems with which the social worker is unable to cope, to seek psychiatric aid, and too often she is unable to find the psychiatric resources needed. One of the first difficulties encountered is the commitment law, which establishes a legal definition of insanity and conditions the procedures under which the mentally ill may be placed under medical care. Public education is needed which will enable psychiatry to define medically the point at which the mentally ill must be placed under institutional care. In many cases the responsibility for diagnosis is placed on the police or members of the family in situations that call for medical attention. Clinical facilities for psychiatric examination and treatment are inadequate. There is need not only for expansion of facilities now in use, but also for establishment of psychiatric clinics in both private and public hospitals. There is also a lack of trained social work personnel in these organizations. A closer cooperation between the psychiatric clinic and social work agencies is necessary for improvement of community and family life.—P. Brand (Children's Village, N. Y.)

3723. Deutsch, A. The mentally ill in America. A history of their care and treatment from colonial times. New York: Doubleday, Doran, 1937. Pp. xvii + 530. \$3.00.—This book is a social historian's account of the care and treatment accorded to the mentally afflicted in this country from colonial days to the days of the mental-hygiene movement. Emphasis is placed upon the evolution of psychiatric concepts in relation to their social setting. An extensive bibliography and an index are appended.—S. Rosensweig (Worcester State Hospital).

3724. Dillon, F., & Masani, K. Psychosis or malingering? *J. ment. Sci.*, 1937, 83, 15-24.—An unusual case of confessed malingering following an alleged head injury is reported, accompanied by a discussion of the difficulties in diagnosis, especially if compensation is involved. Either the malingering or the confession or both may in some cases spring from a psychopathic personality, and this in turn may be of traumatic origin.—C. J. Herrick (Pennsylvania).

3725. Fenges, I. Zur Frage der Entstehung von angeborenen Beweglichkeitsstörungen im Gehirnnervengewebe. (The problem of the origin of congenital motor disturbances in the cranial nerves.) *Arch. Psychiat. Nervenk.*, 1937, 106, 296-311.—In a case of congenital paralysis of the cranial nerves histological examination showed, side by side, changes in their nuclei indicating "defect" and "disappearance." Proof is brought that a fetal process can produce a terminal condition indistinguishable morphologically from the pictures of aplasia and hypoplasia.—P. L. Krieger (Leipzig).

3726. Fuhrmann, M., & Korbsch, H. *Lehrbuch der Psychiatrie für Studierende, Ärzte und Juristen.* (Textbook of psychiatry for students, physicians and jurists.) Leipzig: Barth, 1937. Pp. 236. RM. 10.50.—R. R. Willoughby (Brown).

3727. Goldstein, K. The problem of the meaning of words based upon observation of aphasic patients. *J. Psychol.*, 1937, 2, 301-316.—Evidence is introduced and discussed to show that amnesic aphasia is not caused by a lack of words or a lack of ability to call up word images. The symptoms shown by the patients are shown to result from a change in their basic behavior. The patients have lost "categorical" behavior and are reduced to a mere concrete level of behavior. The simple function of naming objects does not represent a simple superficial connection between a thing and a word. The loss of the meaning of words is accompanied by a great change in the world of the patient, and this shows that language does not merely reflect the world to the mind, but that it is itself a means for building up the world in a particular way, especially in the abstract categorical way.—J. McV. Hunt (Brown).

3728. Grover, M. M. A study of cases of *folie à deux*. *Amer. J. Psychiat.*, 1937, 93, 1045-1062.—"Special interest has always attached to cases of *folie à deux* because of the light which they throw upon the problem of environment and heredity, as well as upon the way in which false ideas may be

developed."—R. Goldman (Boston Psychopathic Hospital).

3729. Guiraud, P. *La théorie des écrans sensoriels et l'hallucinations.* (The theory of sensory screens and hallucinations.) *Ann. méd.-psychol.*, 1937, 95, Part 1, 618-626.—The hallucination may appear to move by itself, but it cannot be seen at will in various positions like a voluntarily imagined object. A truly perceptual hallucination, according to the author, is only inscribed in the sensory space represented by the screen. This screen, in the visual field, is the velvety black which appears before the eyes when they are closed or in a dark room.—M. B. Mitchell (Bellevue Hospital).

3730. Hoff, H., & Pötl, O. *Anatomische Untersuchungen eines Falles von instrumentaler Amusie.* (Anatomical study of a case of instrumental amusia.) *Jb. Psychiat. Neurol.*, 1937, 54, 89-118.—Serial sections in this case showed a bilateral gliomatous infiltration of the white matter of the hemispheres, which extended from the bases of the frontal convolutions to the posterior part of the parietal lobes. The corpus callosum, with the exception of the splenium, was also densely infiltrated. In view of this finding the apraxic aspect of the musical disturbances is obvious. The temporal and occipital lobes were intact. Noteworthy in this case were the blindness for notes and "place" on the keyboard, and loss of memory for Italian.—P. L. Krieger (Leipzig).

3731. Kauders, O. *Ein Fall von isolierter sensorischer Amusie und partieller Geräuschdiagnose.* (A case of isolated sensory amusia and partial diagnosis of noises.) *Jb. Psychiat. Neurol.*, 1937, 54, 119-133.—P. L. Krieger (Leipzig).

3732. Kennedy, F. *The organic background of the psychoses and neuroses.* *J. Amer. med. Ass.*, 1936, 107, 1935-1937.—The author recalls that in his student days paralysis agitans was considered to be a neurosis with no organic or structural basis. Its cellular pathology is now known. "The work on the metabolism of brain tissue, on the chemistry of the nerve-impulse, on the role played by vitamins and enzymes in neural nutrition, on mood changes associated with blood-sugar variation, on the significance of the temporary appearance of menopausal vaginal epithelium in young women passing through cyclic mental depressions—these notions are just appearing over our horizons. If we should tend to limit our inquiries into neurotic and psychotic behavior to any pontifical doctrine, be content with patterning and docketing of mental phenomena, with the formalism and rigidity and humorlessness of the chemical analytic tables of our student days, then I say we are deserting the spirit of medicine for Alexandrine scholasticism."—D. J. Ingle (Mayo Foundation).

3733. Kleist, K. *Über die Gehirnpathologie in ihrer Bedeutung für Neurologie und Psychiatrie.* (The meaning of brain pathology for neurology and psychiatry.) *Allg. Z. Psychiat.*, 1937, 105, 177-185.—The report of the second annual meeting of the Society of German Neurologists and Psychiatrists at Frankfurt in 1936 was concerned with Sherrington's

groups of exteroceptive, proprioceptive and interoceptive sensations.—P. L. Krieger (Leipzig).

3734. Krauch, E. *A mind restored: the story of Jim Curran.* New York: Putnam, 1937. \$2.50.—A former insane patient tells his story.—R. R. Wiltoughby (Brown).

3735. Levy, J. *Coordination of pediatrics and psychiatry in the medical schools.* *Proc. Conf. psychiat. Educ.*, 1936, 49 ff.—"At the Columbia Medical Center we are instituting a program which includes bringing into association with psychiatry all the related medical divisions—general medicine, obstetrics and gynecology, some phases of metabolism, surgery, etc. Our child guidance program for pediatrics fits into that more general background." The value of the work has improved as psychiatrists and pediatricians have worked together. One third of the third-year course in medicine is devoted to psychiatry, and part of it is given over to child guidance.—(Courtesy Child Developm. Abstr.)

3736. Lhermitte, J., & Tchehrazi, E. *L'image du moi corporel et ses déformations pathologiques.* (The image of the corporal self and its pathological distortions.) *Encéphale*, 1937, 32, 1-24.—The bodily pattern should be considered as a living, moving reality, independent of cerebral afferent impulses to a certain degree, and not as a veneer overlaid on actual perceptions and sensations. It is subject to distortions and deformations and even capable of appearing to the subject as a double, a second self to whom he can confide his sensations, feelings, and affections. After giving a historical summary the authors discuss the question of how the constitution of the self-image appears to the subject, the localization of sensations in this image, its physiological structure, and physiological modifications. They review the pathology of the question, giving examples from autopsies and specular hallucinations, and discuss the construction of the self-image in persons with amputated limbs and in those with delusions of amputation. Dealing with deformations in the image, they discuss the bodily image in cases of complete sectioning of the dorsal cord, hemiplegia, agnosia and apraxia, digitalis agnosia, and intoxications. A bibliography of 35 titles is appended.—M. H. Piéron (Sorbonne).

3737. Maas, O., & Paterson, A. S. *Mental changes in families affected by dystrophia myotonica.* *Lancet*, 1937, 232, 21-23.—29 persons showing symptoms of dystrophia myotonica were subjected to psychiatric examination and 17 of the group were found to be of low intelligence. In 11 patients the defect was congenital, while the remaining 6 had deteriorated from a previously normal level of intelligence. 6 patients presented syndromes of mental disease. There seems to be a definite temperament characteristic of the disease. It consisted in persistent and almost morbid cheerfulness, mild grandiosity and a lack of drive.—D. J. Ingle (Mayo Foundation).

3738. Malzberg, B. *The expectation of mental disease in New York City in 1930.* *Ment. Hyg., N. Y.*,

1937, 21, 280-290.—In this study the expectations of mental diseases are based on the average annual rates of first admissions from New York City to all institutions for mental disease in New York State during the three fiscal years ended June 30, 1931, and the average annual rates of mortality in New York City during the same period. Rates of first admissions and rates of mortality for each year of life were computed. It was found that the expectation of mental disease is a minimum at the youngest age level and rises with positive acceleration at the intervening ages to a maximum in old age. Though females have a lower expectation than males throughout life, the general picture shows a similar trend. Tables of the expectation of mental disease among males and females in New York City are appended.—*P. Brand* (Children's Village, N. Y.)

3739. Marchand, L., & Picard, J. L'action des commotions électriques dans le système nerveux; un cas de sclérose cérébrale diffuse avec affaiblissement intellectuel consécutif à une fulguration atmosphérique. (The action of electrical shocks in the nervous system; a case of diffused cerebral sclerosis with intellectual impairment consequent on a lightning stroke.) *Encéphale*, 1935, 30, 229-249.—In a subject 65 years old who had been normal up to that time, a stroke by lightning was followed by a comatose state, after which there was a phase of mental confusion. Then followed a state of asthenia with anxiety crises, ideas of persecution, bradypsychia, slight speech difficulties, and intellectual impairment. Five years after the traumatism, an anatomical examination showed a non-atrophied brain, with no trace of atheroma or lacuna of disintegration, which excludes the hypothesis of senile dementia; the pia mater was of milky aspect (chronic meningitis); the left ventricle (at the side of the traumatized area) was dilated; the lesions of sclerosis involve several elements of the brain, as after violent traumatisms.—(Courtesy *Année psychol.*)

3740. Marriott, W. McK. & Kubitschek, P. E. Clinical child psychiatry and its relationship to pediatric practice and pediatric education. *Proc. Conf. psychiat. Educ.*, 1936, 66 ff.—"There is probably little doubt in the mind of anyone here that clinical child psychiatry should constitute an important part of pediatric practice, and that in order to attain this end, facilities for the study of clinical child psychiatry should be incorporated into pediatric education." The authors describe the child guidance clinics at the Children's Hospital in St. Louis, with an outline of their goal and conclusions. It is necessary for the pediatrician to have a working knowledge of psychiatry. This can best be given in the department of pediatrics. Psychiatric teaching must be adapted to pediatric problems. The teaching leads to the development of psychiatrists from pediatricians.—(Courtesy *Child Developm. Abstr.*)

3741. Mayer-Gross, W. Irritability as a symptom in manic-depressives. *J. ment. Sci.*, 1937, 83, 61-70.—Irritability, defined as "the quality or state of being easily annoyed or excited to anger," is considered in

relation to sleep, fluctuation of mood in psychoses, premenstrual or menstrual fluctuation of mood, brain injury, toxic conditions, circulation, constitutional predisposition, and hypersensitivity. The relative frequency of occurrence of these factors is then presented for two groups of 25 manic-depressive patients, one irritable and the other average. Further study is desirable, especially through adding a third group of irritable people without manic-depressive psychosis.—*C. J. Herrick* (Pennsylvania).

3742. Mayo, E. Psychiatry and sociology in relation to social disorganization. *Amer. J. Sociol.*, 1937, 42, 825-831.—It is only in a restricted area that modern advances in psychiatry possess interest for the sociologist. This restricted area covers studies of psychoneurosis and what is known as personal maladjustment; these ills are essentially social and socially conditioned. Freud's studies lead directly to the conclusion that society is implicated; to some extent psychiatry has become an intimate sociology. Collaboration between psychiatrists and sociologists is necessary, especially perhaps with a view to the development of methods of inquiry.—(Courtesy *Amer. J. Sociol.*)

3743. McFarland, R. A., & Goldstein, H. Biochemistry of the psychoneuroses—a review. *Amer. J. Psychiat.*, 1937, 93, 1073-1095.—The first of a series of four articles dealing with the blood biochemical studies of the psychoneuroses, dementia praecox, manic-depressive insanity, and epilepsy.—*R. Goldman* (Boston Psychopathic Hospital).

3744. Mead, E. G. Social control of insanity. *J. abnorm. soc. Psychol.*, 1937, 31, 430-434.—Treatment of the insane has passed through three stages and is now in the fourth. The first period, in which insanity was thought to be due to witchcraft and was dealt with accordingly, may be termed the demonological. The second period was that of dungeons and chains, during which the insane were treated brutally as criminals. The third was the era of humanitarianism and empirical treatment. The fourth is the present period of scientific study, rational treatment, and preventive medicine, in which insanity is recognized as a "disease, not a doom."—*C. H. Johnson* (Boston Psychopathic Hospital).

3745. Minkowski, E. A propos du problème des hallucinations. (The problem of hallucinations.) *Ann. méd.-psychol.*, 1937, 95, Part 1, 608-614.—The source of the perception is one of the important problems in dreams and hallucinations. Clinically, the sensory modality of the hallucination varies somewhat with the disease. For instance, visual hallucinations are frequent in confusional and dream states, while auditory hallucinations appear especially in states of dissociation. The factor of simultaneity is very important in hallucinatory states. For instance, a patient smells an odor and associates it with the person within his visual field. The attitudes of the patients toward their hallucinations are more important and more varied than the hallucinations themselves. A patient suffering from chronic hallucinatory psychoses may tell the exact time at

which an hallucination occurred, while a schizophrenic patient is apt to speak of them vaguely as being a long time ago.—*M. B. Mitchell* (Bellevue Hospital).

3746. *Minkowski, M. Sur des variétés particulières d'aphasie chez des polyglottes.* (The special forms of aphasia in polyglots.) *Schweiz. med. Wschr.*, 1936, 2, 697-699.—Minkowski describes several cases of aphasia in polyglots, in whom recession of the condition did not follow Pitres' law. He concludes that, aside from the phasic factors emphasized especially by Pick, i.e., factors in the actual sphere of speech, one must consider also the individual's affective and biopsychic relationships to the various languages which he has learned. These factors may determine in a given case which language appears first as capacity for speech is regained.—*P. L. Krieger* (Leipzig).

3747. *Mitchell, A. G. A pediatric viewpoint on the teaching of psychiatry.* *Proc. Conf. psychiat. Educ.*, 1936, 74 ff.—Every physician should be equipped to deal with ordinary psychiatric problems. The only question is: How should psychiatry be taught? In general, instruction should be given both by the pediatrician and by the psychiatrist, and should emphasize the general principles of child rearing as well as those of physical and mental health, omitting theoretical considerations, especially those of a controversial nature. This teaching can best be done by the pediatrician and the psychiatrist working together. It can best be carried out by the psychiatrist working in the department of pediatrics. At the University of Cincinnati lectures on mental health are included in the other courses.—(Courtesy *Child Developm. Abstr.*)

3748. *Moniz, E. Psycho-Chirurgie.* (Psycho-surgery.) *Nervenarzt*, 1937, 10, 113-118.—Moniz believes that certain mental diseases are caused by persisting cell-complexes, particularly in the frontal region, without connections with other parts of the nervous system. Destruction of the cortex by introduction of a sound into the centrum ovale of the frontal lobe and a corresponding prefrontal removal can check these diseases. The author reports cured cases.—*P. L. Krieger* (Leipzig).

3749. *Morel, F. L'audition dans l'aphasie sensorielle.* (Audition in sensory aphasia.) *Encéphale*, 1935, 30, 533-552.—*M. H. Piéron* (Sorbonne).

3750. *Nichols, I. C., & Keller, M. Apraxias and other neurological sequelae of carbon monoxid asphyxia.* *Amer. J. Psychiat.*, 1937, 93, 1063-1072.—The serious neurological complications in carbon monoxid asphyxia are enumerated. It is pointed out that damage to the nervous system can be widespread and not simply confined to the globus pallidus. A case is reported where the patient showed loss of the ability to perform certain skilled acts. Agraphia was present. "Due to severe visuo-motor incoordination, he was unable to learn through concrete example, and a carefully planned retraining program, in which all instructions were completely verbalized, was the means by which the function of written

speech was returned to the patient."—*R. Goldman* (Boston Psychopathic Hospital).

3751. *Page, J., & Landis, C. Quelques aspects sociaux des maladies mentales.* (Some social aspects of mental disorders.) *J. belge Neurol. Psychiat.*, 1937, 37, 104-108.—The authors give statistics regarding the number of mental patients that enter institutions in the United States. It was found that out of 25 births one person enters an institution. The probability of this is greater among the aged than the young and among city dwellers than the country population. It is greater for men than for women and for unmarried persons than for married ones.—*H. Syz* (Cornell).

3752. *Park, E. A. Methods, results and opportunities of four years' liaison between pediatrics and psychiatry.* *Proc. Conf. psychiat. Educ.*, 1936, 83 ff.—Park describes the teaching facilities in the department of pediatrics and psychiatry of the Johns Hopkins medical school, where there is a well developed clinic with an adequate personnel. After examination and suggestions from the psychiatric clinic, the pediatrician undertakes the treatment with the advice of the psychiatrist or vice versa. The psychiatric clinic is held to be indispensable to the department of pediatrics. Its value lies chiefly in three particulars; its contribution to the health of the individual children, the education of physicians and students, and the investigation of abnormal behavior in the human being.—(Courtesy *Child Developm. Abstr.*)

3753. *Pascal, C., & Roger, J. La joie qui guérit.* (Joy as a curative agent.) *Hyg. ment.*, 1935, 30, 157-165.—The authors describe the case of a melancholic cured by joy, which raises the problem of the cure of so-called progressive hallucinatory delusions. Observation of this patient indicated that a single word was sufficient to correct a fixed idea due to dissociated thinking of long standing.—*M. H. Piéron* (Sorbonne).

3754. *Pollack, S. K. Folie à deux. Induced psychoses with report of a case.* *Amer. J. Psychiat.*, 1937, 93, 1039-1043.—*R. Goldman* (Boston Psychopathic Hospital).

3755. *Pözl, O. Zum Apraxieproblem.* (The apraxia problem.) *Jb. Psychiat. Neurol.*, 1937, 54, 133-159.—On the basis of moving pictures of apraxic patients in the Vienna Psychiatric and Neurological Clinic, Pözl brings out those viewpoints of the apraxia problem which parallel the psychological aspects of instinctive acts. The concept of the movement formula is presented and studied in its physiological analogies, using as a paradigm the conduction system of the heart.—*P. L. Krieger* (Leipzig).

3756. *Putnam, M. C. Coordination of pediatrics and psychiatry in the medical school.* *Proc. Conf. psychiat. Educ.*, 1936, 36 ff.—The most serious problem facing the physician at the present time has to do with the emotional life of the infant and the mother. Putnam describes briefly the work of the Yale Clinic of Child Development. In his work with the parents of young children he considers the im-

portance of interpreting the behavior of children to parents and the relationship of the physician's attitude to the parents. He also stresses the importance of keeping at the level of the group in teaching.—(Courtesy *Child Developm. Abstr.*)

3757. Reider, N. Hospital care of patients undergoing psychoanalysis. *Bull. Menninger Clin.*, 1937, 1, 168-175.—This paper, following that of Knight, discusses the role of the psychiatrist to whom the psychoanalytic patient is responsible except during the analytic hour. The responsibilities of the psychiatrist to the psychoanalyst and to the patient are touched on. "The psychiatrist, being in intimate daily contact with the patient, is able to coordinate the activities of the patient in a more expert manner, especially if the management is based upon analytic interpretation of the patient's needs. The net result is then not merely that the patient resides in the protected environment while he is being analyzed, but also that he has the advantages of a more scientific management of his problem throughout his entire stay in the institution."—J. F. Brown (Kansas).

3758. Rouvroy, M. L'intelligence chez les malades mentaux. (Intelligence in mental patients.) *J. belge Neurol. Psychiat.*, 1937, 37, 84-98.—This is a discussion of a paper by Rouvroy (see XI: 309). Simon (Paris) speaks of the difficulties involved in measuring intelligence or its changes, quantitatively or qualitatively. In his own work, instead of employing the direct questionnaire he tests the patient's understanding by letting him read, a method he finds more satisfactory. He advances the hypothesis that in mental patients the mechanisms at work in what we subsume under the term *intelligence* are preserved, but that there is a weakening of the activation of these mechanisms, especially an impairment of concentration. Heuyer (Paris) does not share Rouvroy's skepticism regarding the validity of intelligence tests, which he himself considers very valuable aids. Regarding Simon's hypothesis he states that as long as patients suffering from one disorder all show the same intellectual impairment, this must be considered a dementia regardless of the underlying psychopathological mechanism. Ley states that it is a mistake to compare the stabilized intelligence of the adult with the developing intelligence of the child. He takes exception to the custom of comparing the intelligence defects of general paresis, idiocy or dementia praecox with stages of the normal psychological development; the "regression to infancy" should be left to psychiatric romancers. De Greef states that intelligence must be judged not by the form of presentation of an idea but by its content. A patient may still master the language even though his intellectual faculties are seriously impaired. No specific replies were made by Rouvroy.—H. Sys (Cornell).

3759. Roxo, E. Educación y tratamiento de niños anormales. (Education and treatment of abnormal children.) *Psiquiat. y Criminol.*, 1936, 1,

493-504.—Nothing can be done for certain abnormal (mentally deficient) children, but all should undergo treatment. A bilateral program of service which includes both special education and special medical care is recommended. The views of a large number of authorities are discussed and a partial classification on the basis of endocrine conditions is attempted.—R. M. Bellows (U. S. Employment Service).

3760. Schilder, P. The relation between social and personal disorganization. *Amer. J. Sociol.*, 1937, 42, 832-839.—Experiences are gradually shaped under the influence of action and of trial and error. The objective world is a guide to the psychic construction which is based on vital drives. These get their final meaning by continuous interchange with other human beings. Early deprivations and intimidations interrupting the trial-and-error process lead to faulty adaptations and to neuroses. Deprivations and threats originating from a dissociated and disorganized society will hinder the individual in his adaptation and free development. Wrong attitudes will be transmitted from the maladjusted parent to the children. The individual has to be led back to the point where, threatened by insecurity, deprivations, and destruction, he has given up free emotional development and testing. He has to be given the opportunity to continue his emotional development and to gain an insight into the structure of human relations and of society. He will then be able to be a constructive element in society.—(Courtesy *Amer. J. Sociol.*)

3761. Schulz, B. Übersicht über auslesefreie Untersuchungen in der Verwandtschaft Schizophrenen und über die entsprechenden Vergleichsuntersuchungen. (Review of investigations of unselected schizophrenic families and control researches.) *Allg. Z. Psychiat.*, 1937, 105, 130-156.—P. L. Krieger (Leipzig).

3762. Schwerin, O. v. Rasse und Körperbau bei 100 Schizophrenen aus Baden. (Race and physical type of 100 schizophrenics in Baden.) *Allg. Z. Psychiat.*, 1937, 105, 121-129.—The author regards his critical contribution as an illustration of the slight dependence which can be placed on a short series of cases in determining the racial or physical composition of greater groups of the German population.—P. L. Krieger (Leipzig).

3763. Sheldon, J. H. Anorexia nervosa. *Lancet*, 1937, 232, 369-373.—The current conception of the disease anorexia nervosa is that it is functional in nature and may respond favorably to psychotherapy. The author describes five cases from his practice which give evidence of pituitary dysfunction. He offers the suggestion that pituitary disorders may be produced through emotional stress.—D. J. Ingle (Mayo Foundation).

3764. Stengel, E. Studien über die Beziehungen zwischen Geistesstörung und Sprachstörung. (Studies on the relationships between mental and speech disturbances.) *Jb. Psychiat. Neurol.*, 1937, 54, 150 ff; 177 ff; 206 ff.—The three sections are concerned respectively with speech disturbances in

paralytics and in epileptics, and echolalia and related phenomena in idiots and imbeciles.—*P. L. Krieger* (Leipzig).

3765. **Stransky, E.** Über das Leistungsgefälle bei Testversuchen an Psychischgesunden, Psychopathen und Psychischkranken (Manisch-Depressiven und Schizophrenen). (The loss of efficiency in tests given to normals, to psychopaths and to manic-depressives and schizophrenics.) *Schweiz. Arch. Neurol. Psychiat.*, 1935, 36, 349-369.—The author constructed completion tests of the Ebbinghaus type which he gave to 21 normals, 14 psychopaths, and 17 schizophrenics. In the first series there were 5 words of 4 or 5 letters with 1 letter missing; in the second, 8 words with 2 letters missing; in the third, 6 words with either the first letter or the first 2 letters missing; in the fourth, 4 phrases of 6 or 7 words with several letters missing. A curve was drawn, with the different tests given on the abscissa and the time necessary for correct response on the ordinate. The schizophrenics show fewer total errors than the manic-depressives, and also show greater irregularity in regard to loss of efficiency.—(Courtesy *Année psychol.*)

3766. **Stumpff, F.** Psychopathenforschung und Kriminalbiologie. Erbbiologische Ergebnisse 1933-1937. (Researches on psychopathy and criminal biology. Biological inheritance studies, 1933-1937.) *Fortschr. Neurol. Psychiat.*, 1937, 9, 167-176.—This is a summary of the studies published in the field for the past five years. The article is divided into two sections, the first dealing with studies of twins who are psychopathic, criminal, or both, and the second concerned with studies of the families of psychopaths or criminals. The investigations are still too few to give any broad principles, but they point the way to future studies of the relationship between criminality and psychopathy from the point of view of hereditary factors as well as character structure, and the relationship between psychoses and criminality. There is a bibliography.—*D. S. Oberlin* (Delaware State Hospital).

3767. **Thums, K.** Neurologische Zwillingsstudien. (Neurological studies of twins.) *Z. ges. Neurol. Psychiat.*, 1936, 155, 185-253.—The first contribution to this series deals with heredity in multiple sclerosis. From his study of 11 single-ovum pairs of twins, 10 double-ovum pairs, 12 of opposite sexes, and 18 pairs in which the partner died early, Thums concludes that environment rather than an hereditary Anlage is of predominant importance for the origin of multiple sclerosis.—*P. L. Krieger* (Leipzig).

3768. **Urbanietz, A.** Heterosexuelle Merkmale bei Schizophrenie. (Heterosexual characteristics in schizophrenia.) Breslau: Vater, 1936. Pp. 32.—*R. R. Willoughby* (Brown).

3769. **Ushchenko, A. I.** So called psychopathic or pathological characteristics (constitutional). *Med. Rec., N. Y.*, 1937, 145, 411-412.—In this first installment, a general discussion is given of the problem of the classification of neuroses and the present-day considerations on which such a classification must be

based. The author then begins a discussion of the various groups of psychoneuroses.—*M. H. Erickson* (Eloise Hospital).

3770. **Ushchenko, A. I.** So called psychopathic or pathological characteristics (constitutional). *Med. Rec., N. Y.*, 1937, 145, 452-454.—The author continues his classification of psychoneuroses by the exclusion of neuropathies, vegetotrophic disturbances and organ neurosis based on organic deficiencies. There follows a discussion of the problem of differentiating from neuroses and psychoneuroses the group of pathological personalities variously classified as degenerates, pathological personalities and psychopaths in general; the classifications employed by various writers are reviewed briefly. A classification of psychopathic personalities based jointly on psychopathological manifestations and somatic symptoms is then offered.—*M. H. Erickson* (Eloise Hospital).

3771. **Vervaeck, L.** Existe-t-il un traitement du déséquilibre mental à réactions antisociales? (Is there a treatment of mental disorder with anti-social reactions?) *J. belge Neurol. Psychiat.*, 1937, 37, 99-103.—The author cites some statistics since the enactment of the Belgian law of social defense regarding delinquents and criminals with mental disorders. Because of the low percentage of recidivists in this group he believes that treatment and amelioration in these cases is possible. Such treatment is not especially medical or psychiatric, but must consist of reeducation, social rehabilitation and regular moral and psychiatric control.—*H. Syz* (Cornell).

3772. **Vié, J.** Sur la nature de la certitude hallucinatoire et l'étude analytique des hallucinations. (The nature of hallucinatory certainty and the analytical study of hallucinations.) *Ann. méd.-psychol.*, 1937, 95, Part 1, 614-618.—Some patients insist that their hallucinations are as real as other people around them, and that their vision can penetrate the walls and furniture like X-rays. One theory is similar to Berkeley's objective idealism, namely, that hallucinations are immediately given in the development of various mental diseases; for instance, that they indicate a state of maturity in the psychosis.—*M. B. Mitchell* (Bellevue Hospital).

3773. **Völgyesi, F.** Üzenet az ideges embereknék. (A message to nervous mankind.) (2nd ed.) Budapest: 1936.—A. General part. Help! War and nervousness. II. Peace and neurasthenia. III. Science and belief. IV. The little man and the big world. V. Life before birth. B. Special part. VI. Psychical types. Active and passive people. Hysteria, neurasthenia and ability. VII. Neurosis and passions. Simplified science of neurosis. A. Organ neurosis. B. Psychoneurosis. (1) Anxiety neurosis, (2) compulsion neurosis, (3) occupational neurosis. (4) Neuroses of passion. 203-274. VIII. Protection against neurosis. IX. Psychical cult of India and Japan. Indian yoga and Japanese bushido. X. Beatitude and nervous life. Psychagogy (art of self-discipline). C. Messages. 1. Message to

normally nervous people. 2. Message to children. 3. Message to adolescents and young girls. 4. Message to active minds. 6. Message to married couples. 7. Message to parents. 8. Message to old people. 10. Message to over-nervous people. Final message. Index. Contents.—P. P. Ranschburg (Budapest).

3774. Washburn, A. H. Opportunities for a liaison between psychiatry and pediatrics in a child research institute. *Proc. Conf. psychiat. Educ.*, 1936, 24 ff.—Medical schools stress disease in their teaching and are not sufficiently concerned about understanding the nature of human beings who are suffering from disease. The Child Research Council of Denver has devoted itself to an intensive study of 100 children by workers in all fields. The observations begin at birth and end at maturity. Through this study the attitude of the pediatrician and of the psychiatrist will be merged, normal behavior determined and a complete picture of development obtained.—(Courtesy *Child Developm. Abstr.*)

3775. Weitz, W. Probleme der neurologischen Erbbiologie. (Neurological problems of biological heredity.) *Dtsch. Z. Nervenheilk.*, 1936, 139, 15-33.—The normal functioning of the central nervous system and neuromuscular apparatus is determined by several hundred genes. Pathological mutations in these can lead, in their manifold possibilities of combination, to the most various forms of disease. Weitz discusses various modern problems of hereditary nervous diseases.—P. L. Krieger (Leipzig).

3776. Whitwell, J. R. Historical notes on psychiatry. Philadelphia: Blakiston, 1937. Pp. xii + 252. \$4.25.—A history of psychiatry, which to a considerable extent consists of translations and extracts covering the period from early times to the end of the 16th century. Cases from the scriptures and from the classics, the views of philosophers such as Plato and Aristotle, the views of classical medical writers and of those of the middle-age period are some of the subjects covered. A chronological table is provided. No index.—D. Shakow (Worcester State Hospital).

[See also abstracts 3520, 3556, 3566, 3569, 3611, 3670, 3676, 3688, 3691, 3693, 3709, 3784, 3785, 3788, 3798, 3805, 3809, 3832, 3833, 3840, 3841, 3843, 3862, 3882, 3899, 3904, 3911, 3915, 3934, 3940, 3950.]

PERSONALITY AND CHARACTER

3777. Beck, S. J. Psychological processes in Rorschach findings. *J. abnorm. soc. Psychol.*, 1937, 31, 482-488.—Attention is directed to certain personality traits and their relationship to what is called "neutral" psychological processes and the larger personality background in which these traits appear. Only four Rorschach test factors are discussed. "Movement" could validly be interpreted as an introversive trend in the sense of an inner creative activity in the healthy adult of superior intelligence. "Color response" is considered under:

pure color, color form and form color. Good or clearly perceived forms occur with high frequency in healthy adults and infrequently in the feeble-minded. "Organization response" has its greatest and least manifestations occurring at the two ends of the intelligence scale. The outstanding conclusion is that it is not possible at all times to interpret the same Rorschach factor as having precisely the same personality value. The trait meaning of any psychological process cannot be known, even after the process has been identified, until there is a picture of the personality as a whole.—C. H. Johnson (Boston Psychopathic Hospital).

3778. Boda, S. v. Verschiedenheit und Unterschiede der allgemein charakterologischen und speziell typologischen Fragestellung. (The diversity and differentiation of the positions of general characterology and special typology.) *Z. padag. Psychol.*, 1937, 38, 105-108.—Characterology includes both the psychology of the individual and moral, cultural and philosophical considerations. The starting point of typology is inter-individual similarities and differences. Its orientation is purely practical and sometimes artificial and oversimplified. It needs a firmer foundation and a relationship to personality structure. It should separate individuals into two quickly and surely recognizable groups based on qualities conditioning the entire psychic activity, i.e., not on psychic content but on the formal functional organization of affectivity. The most important criterion for this is the degree of abreaction. Individuals are thus divided into the emotionally permeated, who abreact suddenly and completely, and the passionate, characterized by narrowing, inhibitions and splitting, who abreact incompletely. The second type generally shows a greater drive than the first to complete its evolution.—M. E. Morse (Baltimore).

3779. Chi, P. L. Statistical analysis of personality rating. *J. exp. Educ.*, 1937, 5, 229-245.—This study consists of three parts: the first is concerned with the consistency of personality ratings made by teachers on their pupils in the elementary school of the University of Chicago; the second is a study of the halo effect; and the last part is a factor analysis. Data from the first part of the study show that, on the whole, the estimations of the teachers were quite reliable; but the correlations between them were not high. This disparity seems to be due partially to the fact that raters differ in what they observe. Data on the halo effect reveal that, although the ratings were given with respect to specific actions in terms of which traits were defined, the halo was still a significant factor operative in the teachers' estimations. The results of factor analysis show that there are four factors operative in each rating, namely, the general factor of will-power, the specific factor, the halo, and the chance error. The loading of each factor in each rating varies with the traits. On the average, the specific factor accounts for a little less than one-half of the total variance, the general factor of will-power accounts for about one-

third, the halo accounts for about one-sixth, and the chance error for about 5%.—H. W. Karn (Pittsburgh).

3780. Gardner, J. W. An experimental study of the Luria technique for detecting mental conflict. *J. exp. Psychol.*, 1937, 20, 495-505.—"A list of fifty words, fifteen of which were 'critical,' was presented in a free-association situation to thirty-three college students selected at random. The 'critical' words were for the most part words having some sexual connotation. The non-critical words were taken from the Kent-Rosanoff list, and from the non-critical words on Crosland's list. Simultaneously with the usual verbal response, the subjects were required to exert pressure with the preferred hand upon a recording lever. They were asked to maintain an even pressure upon a second lever with the other hand throughout the experiment. Critical words were differentiated from non-critical words (1) by longer reaction times ($D/\sigma_D = 4.68$), (2) by more intense deflections in the record of the preferred hand during the latent period ($D/\sigma_D = 4.16$), (3) by more intense deflections in the record of the preferred hand following the required pressure ($D/\sigma_D = 2.71$) and (4) by more intense deflections in the record of the non-preferred hand ($D/\sigma_D = 1.53$). Post-critical words were accompanied by none of the above mentioned symptoms, appearing in all respects to be neutral stimuli."—H. W. Karn (Pittsburgh).

3781. Goodenough, F. L. The relation of mental growth to personality and adjustment. *Ment. Hyg.*, N. Y., 1937, 21, 243-254.—As opposed to the term "physical growth," mental growth may be held to include all changes in type of response to external stimuli that presumably result from growth changes in the central nervous system. It is signalized by measurable changes in behavior. A limited definition includes those aspects of mental growth that are linked together under the heading of "general intelligence," the ability to think in abstract terms, to perform tasks of increasing complexity, and to use symbols and other short cuts for securing desired results. Though a given measurement may be misleading in many individual instances, yet the concept of measurement is a forward step. There are two points of view in regard to measurements. On the one hand, there are those who apply this device blindly, and on the other hand those who discard it utterly and revert to the case history method. A middle road should be chosen. There is need for clarification of language and substitution of exact statements based upon actual facts elicited and actual measuring devices used in place of vague general statements in terms of "traits" which are loosely defined and at best only imperfectly measured. The measuring instruments should be refined. Most of them predict conduct regardless of conditions, instead of measuring conditions under which conduct occurs.—P. Brand (Children's Village, N. Y.).

3782. Hoorn, F. Charakter und Gesundheit. (Character and health.) Troppau: Selbstverl., 1937. Pp. 101. Kč 17.—R. R. Willoughby (Brown).

3783. Loudet, O. El Padre Castañeda a la luz de la psicología patológica. (Father Castañeda in the light of pathological psychology.) *An. Soc. Psicol. B. Aires*, 1935, 1, 9-56.—Basing his theories on Capdevila's *La Santa Furia del Padre Castañeda*, the author considers the case of the Argentine priest Castañeda in the light of psychopathology. He points out tendencies to paranoia, with hypomania, as shown in his agitated activity and in his writings.—(Courtesy *Année psychol.*)

3784. McKinney, F. Concomitants of adjustment and maladjustment in college students. *J. abnorm. soc. Psychol.*, 1937, 31, 435-457.—The adjudged poorly adjusted are more psychoneurotic, receiving a reliably higher score on the Thurstone personality schedule than the well adjusted. There is evidence that they also are more introverted. The adjudged poorly adjusted tend to be slower in associating words than the well adjusted, and to have more association blocks and atypical responses, which are commonly accepted indices of complexes. The adjudged well adjusted attain more social positions of honor and achievement, and tend to be more athletic and more interested in the opposite sex. They also tend to come from families with other older children, from families unbroken by death, and from more mature parents. The adjudged poorly adjusted tend to have had more illnesses and more scars and bodily defects, and there is a tendency for more of them to wear glasses. They appear to spend more time in stag and parlor games, and attend church more frequently. These data tend to substantiate many of the precepts of the mental hygienist regarding the advantages of recreation, sports, associations with people, extra-curricular activity, and striving for attainable academic and social goals.—C. H. Johnson (Boston Psychopathic Hospital).

3785. Rosenbaum, B. B. Neurotic tendencies in crippled girls. *J. abnorm. soc. Psychol.*, 1937, 31, 423-429.—The Thurstone personality schedule was given to 43 crippled girls. The average score for these handicapped girls fell into the "emotionally maladjusted" group. The relationship between neurotic symptoms and physical defects exists to an exceptionally marked degree when a group of crippled girls is compared with a normal group. As these girls grow older and mature emotionally and physically, but are deterred in making normal social adjustments because of their handicaps, they tend to become more and more introverted and neurotic.—C. H. Johnson (Boston Psychopathic Hospital).

3786. Schaffer, K. Bólyai Farkas idegvilágáról. (The neural world of Wolf de Bólyai.) *Magyar Széle*, 1936, 6, 1-9.—In the controversy about the mental state of the great Hungarian mathematician Wolff (Farkas) v. Bólyai, who was characterized by Mrs. Szirmay-Pulszky as a schizoid with strong cyclothymic features, and who was diagnosed by Moebius 30 years ago as nearly psychopathic, Schaffer concludes that Bólyai was an élite brain in mathematics with different special talents and very

high general intelligence.—*P. Ranschburg* (Budapest).

3787. Stagner, R. The Wisconsin scale of personality traits. *J. abnorm. soc. Psychol.*, 1937, 31, 463-471.—This is a new test constructed along the lines of the Bernreuter inventory, but with certain modifications of technique. The reliabilities of the four scales employed are fair. The scale has been successfully used in studies of factors related to personality traits, and seems to meet certain of the difficulties of the Bernreuter scale, concerned chiefly with the contemporary concept of introversion. In this test the traits considered are the two aspects of "introversion" as reported by Stagner and Pessin, a factor designated as "persistence" by Wang, and "general emotionality" as defined by Thurstone.—*C. H. Johnson* (Boston Psychopathic Hospital).

3788. Strecker, E. A., Appel, K. E., Palmer, H. D., & Braceland, F. J. Psychiatric studies in medical education. II. Neurotic trends in senior medical students. *Amer. J. Psychiat.*, 1937, 93, 1197-1229.—In this paper of the series the substance of the questionnaire used is given, together with the statistical results. The responses in the questionnaire fell into three broad, readily recognizable groups: normal, neurotic, and prepsychotic. 31% of the 114 students were in the normal group; 3% were in the pre-psychotic group; 22% were mildly neurotic; 19% were definitely neurotic; and 25% were markedly neurotic. There does not seem to be any greater frequency of neurotic reactions in senior medical students than in the larger undergraduate bodies. However, it is recognized that a serious mental-hygiene problem exists in medical school.—*R. Goldman* (Boston Psychopathic Hospital).

3789. Strehle, H. Analyse des Gebarens. Erforschung des Ausdrucks der Körperbewegung. (Analysis of conduct. Research in expression by gesture.) Berlin: Bernard u. Graefe, 1935. Pp. 223.—This book, which deals not merely with theory but with practical usage, deals simultaneously with the broadening and the systematizing of our knowledge of character. The first section contains an analysis of the usual indications of posture, of each individual pose and motion, together with the complete person. In the second section there is an investigation into the meaning of the gestures of each part of the body. Following is a summary of how one can, by basing judgment upon these gestures, diagnose the personality. In the appendix are listed the gestures which are to be found in the various types of personality.—*J. C. G. Seidl* (Manhattan College).

3790. Wallon, H. La méthode des tests et l'étude du caractère. (The test method and the study of character.) *Pour l'ère nouv.*, 1937, 15, 13-15.—The author discusses the usefulness of the psychological profile and shows the difficulty involved in making a character profile. The two principal questionnaire methods for testing character (Woodworth and Pressey) are compared.—*M. H. Piéron* (Sorbonne).

3791. Witty, P. A., & Shacter, H. S. Hypothyroidism as a factor in maladjustment. *J. Psychol.*, 1936, 2, 377-392.—A case of hypothyroidism in a nine-year-old child is reviewed. Considerable improvement was evidenced in play and school behavior when thyroid therapy was administered. The authors conclude that thyroid therapy may result in very significant changes in personality and mental adjustment of many children considered dull or retarded.—*F. L. Reinwald* (Brown).

3792. Young, K. Freedom, responsibility, and self-control. *Ment. Hyg.*, N. Y., 1937, 21, 177-186.—Several factors that indicate maturity in the individual are the development of independence, the attainment of normal heterosexuality, responsibility for acts, and conscious self-control. Parents must realize that their children cannot mature if they keep them in emotional bondage. They should prepare them sufficiently for independence and freedom by building up in advance habits and attitudes of responsibility. Responsibility is related to the group demands, and there is wide variation in the demands of the groups to which one belongs. Self-control is characterized by foresight and consideration of self in relation to others. A sense of freedom must be accompanied by self-control and a corresponding sense of responsibility.—*P. Brand* (Children's Village, N. Y.).

[See also abstracts 3632, 3802, 3826, 3827, 3834, 3866, 3875, 3881, 3892.]

GENERAL SOCIAL PROCESSES

(incl. Esthetics)

3793. Angus, W. The Turk's characteristic difficulties in learning English pronunciation. *Quart. J. Speech*, 1937, 23, 238-243.—A phonetic comparison of Turkish and English indicates two sources of difficulty: several English sounds do not occur in Turkish, hence substitutions for these are made; and the articulation of Turkish is characterized by less energetic movements than is normal for English. The latter difference causes perceptible modification of both vowels and consonants in English. A detailed analysis indicates which sound substitutions occur, and suggestions for increased accuracy are made in terms of the imitation of sound values in certain Turkish words, the sounds of which closely resemble the desired English sounds.—*W. H. Wilke* (New York University).

3794. Bateson, G. Naven: a survey of the problems suggested by a composite picture of the culture of a New Guinea tribe drawn from three points of view. New York: Macmillan, 1937. Pp. xvii + 296. \$5.00.—*R. R. Willoughby* (Brown).

3795. Bolton, E. R. Measuring specific attitudes toward the social rights of the negro. *J. abnorm. soc. Psychol.*, 1937, 31, 384-397.—The scores made on Forms A and B of the Hinckley scale of attitude toward the negro are not exactly comparable when given at the same sitting to a group that is strongly opposed to social intermixture with the race. The

more advanced students in the groups studied are more liberal in their attitude toward the rights of the negro than the freshmen. The results of this experiment show that this group of southern students are much more liberal toward the economic, the political, and the educational rights of the negro than toward social intermixture with the race. Results also seem to show the possibility of developing by the Thurstone method of equal-appearing intervals a battery of comparable scales of attitude which will make possible an analysis of specific attitude variables toward the social rights of the negro.—*C. H. Johnson* (Boston Psychopathic Hospital).

3796. **Braunshausen, N.** *Le milieu social et l'intelligence.* (The social environment and intelligence.) *Arch. belges Sci. Educ.*, 1937, 2, 181-192.—The author gives a report on certain studies made in Germany, Belgium, and France by Lahy, and by himself in Luxemburg, on the relations between social environment and intelligence as shown by school grades and intelligence tests. The results showed that the intelligence thus determined was very often superior in children from the higher social groups. The author recognized the fact that the results are in large part due to external conditions and to the family's mentality, the better results being linked with the more cultured environments. Both investigators believe that in certain environments there is a consistent social-hereditary element in the transmission of habits and modes of reasoning which allows intelligence to operate more easily and more efficaciously in the solving of the theoretical and practical problems which life imposes on everyone. This conclusion suggests the possibility of raising the intellectual level in democratic states by increase in public instruction and by continued amelioration of the social environment.—*R. Nihard* (Liège).

3797. **Britt, S. H.** *Blood-grouping tests and the law: the problem of "cultural lag."* *Minn. Law Rev.*, 1937, 21, 671-702.—The author summarizes the history of the blood-grouping tests, first in science, second in the law. An evaluation of the tests, which can often prove non-parentage (either non-paternity or non-maternity), is followed by some explanations of the "cultural lag" of many years between the acceptance of the tests in science and their acceptance in law.—*E. D. Hunt* (Brown).

3798. **Brousseau, K.** *Psychological service at the Los Angeles Institute of Family Relations.* *J. consult. Psychol.*, 1937, 3, 49.—The Institute deals only indirectly with medical and legal problems; most of its work is of a psychological nature, especially since the daily program involves "the counseling of persons with marital difficulties of one kind or another."—*P. S. de Q. Cabot* (Simmons).

3799. **Bruchhagen, P.** *Trieb und Rasse.* (Instinct and race.) *Z. Rassenk.*, 1937, 5, 152-167.—An active extravert tendency and striving toward individual independence are the decisive characteristics of Nordic mentality. In opposition to prevailing opinions (Eickstedt, Petermann, Clauss,

MacDougall, Scheler, Pfander, Klages), the author classifies the individual instincts and instinctive tendencies (the urges to power, knowledge, construction, and social life) under the two above-mentioned basic tendencies.—*P. L. Krieger* (Leipzig).

3800. **Crawford, M. P., & Nissen, H. W.** *Gestures used by chimpanzees in cooperative problem solving.* (Silent film.) New York: Instructional Films, Inc., 30 Rockefeller Plaza, 1937. 1 reel, 241 ft., 16 mm., 8 min. \$2.50 rental per use-day; \$27.50 sale.—Produced by Yale Laboratories of Primate Biology. The steps taken by pairs of chimpanzees in learning to pull in a heavy box with two ropes are illustrated. Samples of uncoordinated behavior are followed by responses typical of the three stages in training. The gestures used by chimpanzees in stimulating a partner to pull are featured.—*M. P. Crawford* (Yale).

3801. **Danckert, W.** *Musikethnologische Erschliessung der Kulturkreise.* (Opening up the cultural field of musical ethnology.) *Mitt. anthropol. Ges. Wien.*, 1937, 67, 53-57.—*P. L. Krieger* (Leipzig).

3802. **Dollard, J.** *Caste and class in a southern town.* New Haven: Yale Univ. Press, 1937. Pp. 502. \$3.50.—The author investigated the relationships between social structure and personality in a town in the deep south, using as his principal technique collection of life-history material by a modified psychoanalytic method, but also participating in the daily life of the citizens so far as possible. The white and negro groups are true castes, and each is divisible into middle and lower classes, with traces of an upper class in the white caste; the caste division is rigorously and arbitrarily maintained by the whites through an elaborate system of observances. The whites derive substantial economic, sexual, and prestige gains from the system, and the lower-class negroes probably gain biologically in terms of increased freedom of impulse expression; the middle-class negroes, however, renounce this also. White aggression may be largely explained as projection of guilt over the gains secured, since the latter are not sanctioned by the larger American mores; negro aggression is necessarily covert when directed against whites, but is often expressed violently toward their own group. L. W. Doob contributes a chapter on the poor whites, whose deprivations are primarily economic. There is a good deal of emphasis on method, and general phenomena such as bias of the investigator and race prejudice are discussed in terms of the specific investigation.—*R. R. Willoughby* (Brown).

3803. **Ellis, H.** *On life and sex: essays of love and virtue.* (2 vol. in one.) Garden City: Garden City Publ. Co., 1937. Pp. 216. \$1.00.—*R. R. Willoughby* (Brown).

3804. **Frank, L. K.** *"Facing reality" in family life.* *Ment. Hyg.*, N. Y., 1937, 21, 224-230.—"Facing reality" is defined differently in the various fields in which it is used. "Whose reality?" is a

question that is not answered. Today reality must be faced by attempting to create reality in the family, and in doing this the risk of failure must be run. Values and goals are needed to which lives can be oriented, and the decisions made today may emerge for the guidance of the future generation.—*P. Brand* (Children's Village, N. Y.).

3805. Gelma, E. *La dépression mélancolique du poète Ovide pendant son exil.* (The melancholic depression of the poet Ovid during his exile.) *Med. Als. Lorr.*, 1935. Pp. 28.—In this attempt at a retrospective clinical examination, the author points out that Ovid, two years after the beginning of his exile, showed transitory morbid disturbances lasting three or four years, with asthenic symptoms, decay, neuro-vegetative impairment (bradycardia, canities, etc.), and melancholia with anxiety, sadness, discouragement, remorse, nightmares, insomnia. The symptoms suggest a reactive psychosis of melancholia in a predisposed asthenic.—(Courtesy *Année psychol.*)

3806. Haeckel, J. *Das Mutterrecht bei den Indianerstämmen in sudwestlichen Nordamerika und seine kulturhistorische Stellung.* (Matriarchy among the Indian tribes in the southwest United States and its place in cultural history.) *Z. Ethn.*, 1936, 68, 227-249.—The ancestors of the present western Pueblos are supposed to be the representatives of matriarchy in the southwest states. Certain patriarchal tendencies probably come from an older patriarchal stratum with blood-related groups united by ceremonies. In this instance, apparently, there was originally no relationship between matriarchy, totemism and the dual system. Totemism probably arose later and the dual system earlier than matriarchy.—*P. L. Krieger* (Leipzig).

3807. Heberle, R. *Wirtschaftliche und gesellschaftliche Ursachen des Geburtenrückganges.* (Economic and social causes of decline in the birth rate.) *Arch. BevölkWiss. BevölkPolit.*, 1937, 7, 1-33.—Heberle discusses the economic and social rather than the sociopsychological causes of the decrease in the birth rate throughout Europe. He does not seek to establish universal "laws" and "final" causes, but rather tries to discover the different constellations in the various peoples, their chronological changes, and their effects on depopulation.—*P. L. Krieger* (Leipzig).

3808. Hevner, K. *The aesthetic experience: a psychological description.* *Psychol. Rev.*, 1937, 44, 245-263.—A tentative definition calls aesthetic any experience which evokes the overt or implicit response "How beautiful." It is usually though not necessarily affectively toned, and is set apart from other current mental activities by its dignity, intensity, and unity. But it is psychologically a blend of many concurrent processes, automatic and voluntary. It involves attention and tension; sensations for their own sake, whose perceptual relations are intellectualized and abstracted from the useful; a certain background of acquired skill, a sense of mastery or of difficulty overcome; and an

emotional tone but never a genuine emotion. Since the aesthetic experience must involve attention centered on an object and a feeling of mastery, it cannot be of long duration unless attention shifts to different aspects. Training in the attentional and affective phases of the aesthetic experience is necessary. There are individual differences in the experience as to the processes involved, the capacity for having it, its genesis, and the objects which elicit it.—*A. G. Bills* (Chicago).

3809. Hopkins, F. *Attempted suicide: an investigation.* *J. ment. Sci.*, 1937, 83, 71-94.—Records from the Smithdown Road Hospital, receiving almost all cases of attempted suicide in the Liverpool area, and coroner's records of suicides in the same area, were compared as to sex, age, date, and method, both records being taken for a four-year period. A more detailed study was made of 100 cases of attempted suicide, comprising 50 consecutive admissions of each sex. Data are presented as to seasonal variation, age incidence, marital status, religion, occupation, employment, economic position, personal family, and medical history, method and severity of attempt, previous attempts, physical and mental state on admission, and causes, both precipitating and conditioning.—*C. J. Herrick* (Pennsylvania).

3810. Janet, P. *Le langage inconsistant.* (Inconsistent language.) *Theoria*, 1937, 3, 57-71.—To begin an action an animal mobilizes more energy than is necessary to continue it. The surplus finds outlet in various exaggerated and useless movements, particularly movements of the respiratory apparatus. The cries which an animal thus emits on entering upon a new course of action may become signals for other animals of the group to initiate the same course of action, as in flight from danger. From such beginnings human language developed as an integral part of activity. The meanings of the verbal expressions were the correlated activities. In time, however, language has become more and more separated from action. An extreme of separation can be seen in certain pathological cases where there is no relation at all of linguistic expressions to activity and reality; the subject does not believe even his own words. Among the various causes which have determined this separation are the elementary intellectual actions, such as commanding, in which a leader produces only the verbal expression while followers carry out the action, and reciting past events; and verbal play, as in conversation and Piaget's "collective monologue," in which the more serious action character of language is suppressed.—*D. V. McGranahan* (Harvard).

3811. Kemp, T. *Prostitution.* Copenhagen: Levin & Munksgaard, 1936. Pp. 253. 10 Dan. Kronen.—This study, undertaken at the request of the police authorities, was financed by the Copenhagen city administration and the Rockefeller Foundation. Between 1931 and 1935 530 prostitutes were examined medically, with special reference to psychiatric and hereditary factors. 50 cases are here reported in detail. Slight mental defect and

hereditary conditions were often found. In general, the women were neither sufficiently abnormal to justify institutional care nor capable enough to shift entirely for themselves. The author concludes that prostitution is to be combated chiefly by eugenic measures.—*M. E. Morse* (Baltimore).

3812. **Langeard, P.** *L'intersexualité dans l'art. Psychologie intersexuelle.* (Intersexuality in art. Intersexual psychology.) Montpellier: Thèse de Médecine, 1936. No. 9.—A study of the character of artists and especially of the appearance in artists of feminine psychology. The author believes that civilization weakens the sexual differentiations, the man becoming more refined and the woman more virile.—*M. H. Piéron* (Sorbonne).

3813. **Lehmann, R.** *Die Herausbildung des Führertums auf niederen Stufen der Kultur in Zusammenhang mit der gesellschaftlichen Entwicklung.* (The evolution of leadership in the lower stages of culture in connection with social development.) *Baessler Arch. Völkerk.*, 1936, 19, 63-77.—Primitive society is not "blind" but rather it undergoes a constant although often slow change in structure. The basic factors are the biological (blood kinship) and the geographical (propinquity).—*P. L. Krieger* (Leipzig).

3814. **Milke, W.** *Totemzentren und Vermehrungsriten in Australien und Ozeanien.* (Totem centers and fertility rites among the natives of Australia and Oceania.) *Z. Ethn.*, 1936, 68, 211-227.—*P. L. Krieger* (Leipzig).

3815. **Mudd, E. H.** *An analysis of one hundred consecutive cases in the Marriage Counsel of Philadelphia.* *Ment. Hyg.*, N. Y., 1937, 21, 198-217.—The work of the Marriage Counsel of Philadelphia has two main divisions, individual consultation and education for marriage and family life. 100 consecutive cases were selected for study. The individual consultation is offered in terms of the person's needs. There was no fee, but contributions were accepted from the clients. The educational activities consisted in furnishing speakers to talk on the work of the counsel to interested groups, organizations and classes in normal schools and colleges, in organizing seminars, in cooperating with group leaders and taking part in conferences in allied fields, and in getting out reports and articles. The clients represented a fair cross section of the social group both educationally and economically. In age they ranged from 18 to 40. There were four times as many women as men. The married and unmarried were represented equally. The majority were of the middle group of the low-salaried professions and trades. The questions that came up had to do with many phases of human relationship and adjustment, the majority having to do with the physiology and psychology of sex. Cases were classified into three categories, pre-marital situations, specific situations, and general upset. Four fifths of the clients visited the Marriage Counsel only once or twice in consultation and limited their other use to letters, lending library, and telephone calls. Short-contact service

with no obligating follow-up enabled prospective clients to use the service freely. Case histories are included.—*P. Brand* (Children's Village, N. Y.).

3816. **Myers, G. C.** *Modern family.* New York: Greenberg, 1937. Pp. 296. \$1.00.—*R. R. Willoughby* (Brown).

3817. **Nierhaus, R.** *Das Problem psychologischer Deutung vorgeschichtlicher Kunst.* (The problem of the psychological interpretation of prehistoric art.) *Kunst. Prähist. Z.*, 1937, 26, 1-23.—*P. L. Krieger* (Leipzig).

3818. **Popenoe, P., & Wicks, D.** *Marital happiness in two generations.* *Ment. Hyg.*, N. Y., 1937, 21, 218-223.—A study of the association of marital happiness with childhood experiences and family background. The experimental group were the clients of the Los Angeles Institute of Family Relations, upon whose statements the results are based. The control group of about 2000 marriages, chosen from the educated part of the population and of at least 5 years' duration, was obtained from the tabulations of graduate students in adult-education classes of the University of Southern California. The results show that there is a marked relationship between being brought up in a happy home and a successful marriage. Both biological and educational factors seem to be involved in this result.—*P. Brand* (Children's Village, N. Y.).

3819. **Rabaud, E.** *Sociétés humaines et sociétés animales.* (Human and animal societies.) *Rev. sci.*, Paris, 1936, 74, 225-227.—The author's aim is to show how the study of animal societies is an aid in the understanding of human societies. He believes that social grouping appears as the result of mutual attraction which the individuals exercise on each other; however, each individual keeps its own personality. The social animal lives alone in the midst of its companions. In human societies a new element appears, viz., states of consciousness, and the investigator must study the influence which these states exercise on the basic individualism.—*M. H. Piéron* (Sorbonne).

3820. **Ruml, W.** *Ein Schreibphänomen?* (A writing phenomenon.) *Krim. Mh.*, 1937, 11, 49-52.—A congenitally left-handed man, who wrote a normal and identical script equally well with either hand, wrote mirror script well and unconsciously with the left but poorly with the right hand. When learning to write he wrote mirror script with his left hand until he was discovered and forced to use his right hand. Ruml emphasizes two independent factors in writing: motor representations and technic. This subject lacked the technic for normal left-handed script and right-handed mirror script. He had the representation only of right-handed writing, which he carried out with either hand in opposite directions. The proof of this is his writing normal script with the left hand and his difficulty in writing mirror script with the right hand. The left hand, trained in other ways, could easily carry out a right-handed representation, but the right hand, trained only for right-handed writing, failed in mirror script

because of the absence of a representation.—*M. E. Morse* (Baltimore).

3821. *Seashore, R. H., & Eckerson, L. M.* English recognition vocabulary test. Los Angeles, Calif.: Authors, 1937. Pp. 8.—*E. D. Hunt* (Brown).

3822. *Squires, P. C.* Dostoevsky's master-study of the "protest." *Sci. Mon.*, N. Y., 1937, 44, 555-557.—Dostoevsky's interpretation of Raskolnikov anticipated contemporary thought regarding the role of "protest." Raskolnikov's crime represents his protest against a maddening realization of inadequacy.—*O. P. Lester* (Buffalo).

3823. *Szondi, L.* Contributions to "fate analysis." I. An attempt at a theory of choice in love. *Acta Psychol.*, Hague, 1937, 3, 1-80.—The author presents a theory of choice in love to the effect that such choice is directed "by the latent recessive genes, by the common ancestors that reappear, and formally reincarnate, in later generations after having been repressed for periods. The mates, though frequently quite dissimilar in their manifest traits, are attracted by the stimuli of a unique 'identity'." This theory, drawn from the general observation that healthy persons choose mates whose relatives or ancestors or brothers and sisters are afflicted with the same hereditary disease as the sick mate, is thereafter supported by numerous examples and extended to the discussion of basic concepts of genealogy, the methods of establishing the heterozygote character and its effectiveness in fate marriages, the role of the latent recessive genes in persons marrying two or more times, the role of the latent recessive genes in marriages of blood relatives, stuprum, incest, and totem.—*K. U. Smith* (Rochester).

3824. *Thorndike, E. L.* How we spend our time and what we spend it for. *Sci. Mon.*, N. Y., 1937, 44, 464-469.—Data from nearly 500 adult women connected with a Y.W.C.A. indicate an expenditure of waking hours per week as follows: 66 hours, not quite $\frac{3}{4}$ of the waking time, for work and duties; 45.5 + hours, somewhat over $\frac{3}{4}$, for pleasure. The translation of these time schedules into schedules of wants gratified (according to a jury of six psychologists) reveals that time spent other than in sleep, work for a wage, and transportation serves chiefly the desire for entertainment in the broad sense—about 42% of such time. Another 20%, approximately, is spent for physical needs; 12% to get approval; and about 13% to get companionship and affection. In reports by professional, sales, and factory workers (male and female) of a telephone company, about 40 hours a week are left at the adult's disposal. Over half of the free time, or about 25 hours a week, is spent for entertainment. Another large fraction is spent for companionship, which is itself a form of entertainment. Less than 2% of leisure time is credited to mere rest. Evidence of use of leisure time for welfare of others is rare, except in the case of professional men. The craving for entertainment would seem to be deeply rooted in man's nature. The human nervous system is very adaptable, but "its lines of least resistance go to-

ward cheerful sociability, free play, sensory stimulation, and emotional excitement."—*O. P. Lester* (Buffalo).

3825. *Thorndike, R. L., & Stein, S.* An evaluation of the attempts to measure social intelligence. *Psychol. Bull.*, 1937, 34, 275-285.—Following a brief discussion of measures in areas allied to social intelligence—those dealing with a different meaning of the word "social," those attempting to assay interest or attitude, and those measuring items of acquired information—and of preliminary attempts to measure social intelligence, the writers evaluate the George Washington social intelligence test. This test is unsatisfactory in that it has yielded low coefficients of correlation in studies of validity, does not correlate with other tests of the social side of the individual, and shows relatively high correlation with tests of abstract intelligence. The writers hope that further investigation, via situation tests, movies, etc., may throw more light on the nature of ability to manage and understand people.—*R. H. Brown* (Yankton).

3826. *Tiber, Á.-W.* A tömeglélek a mélylélektan megvilágításában. (The mass psyche in the light of depth psychology.) *Emberismeret*, 1936, 2, No. 2, 3-7.—The chief source of individual interests is instinct, the expression of which is not withheld by the mass.—*P. Ranschburg* (Budapest).

3827. *Tomory, V.* A parasztság szemléletének alakulása. (The formation of the viewpoint of the peasantry.) Szeged: 1935. Pp. 123.—First part: I. Psychology of the community. II. Research on environment. 1. Milieu. 2. Individual. 3. Synthetic milieu-individual system. 4. Practice of research on environment. III. Evolutional psychology. Second part: I. Former outlook of the peasantry. 1. Law of accommodation. 2. Objectivation of peasant contemplation. 3. Law of polarity. 4. Results. II. Contemporary evolution. 1. Grouping of reasons and their psychic effects. 2. Newer objectivation of peasant contemplation. 3. Alteration of life-rhythm of the peasantry. 4. Results. Literature.—*P. Ranschburg* (Budapest).

3828. *Utterback, W. E.* An appraisal of psychological research in speech. *Quart. J. Speech*, 1937, 23, 175-182.—The adaptation of experimental findings in psychology to problems in speech has proved valuable, although few such studies have been undertaken. Mere restatement of rhetorical principles and procedures in terms of various psychological theories has been largely a waste of time. The most fruitful trend appears to be the direct application of experimental methods, derived from experimental psychology, to speech problems. Several such studies of audience behavior have made useful contributions to the psychology of speech.—*W. H. Wilke* (New York University).

3829. *Warner, W. L.* A black civilization: a social study of an Australian tribe. New York: Harper, 1937. Pp. xviii + 594. \$5.00.—*R. R. Willoughby* (Brown).

3830. Wechsler, D., & Pignatelli, M. L. Reversal errors in reading: phenomena of axial rotation. *J. educ. Psychol.*, 1937, 28, 215-221.—It is pointed out that in the analysis of "reversal" errors in reading one must consider the plane in which the rotation takes place and also the angular distance involved, but the preoccupation of previous investigators with mirror writing and the so-called sinistro-dextral inversions has implied that the rotation occurs primarily around the vertical axis. Tables are given in which all capital and small letters (printed) of the alphabet are shown rotated about the vertical axis, rotated about the horizontal axis, rotated about the depth axis (clockwise and counterclockwise) and rotated about two axes (double reversals).—A. W. Melton (Missouri).

3831. Wortis, J. A note on the body build of the male homosexual. *Amer. J. Psychiat.*, 1937, 93, 1121-1125.—Little indication of effeminate or intersexual types of body build was found in a group of male homosexuals who were studied.—R. Goldman (Boston Psychopathic Hospital).

[See also abstracts 3606, 3690, 3694, 3695, 3706, 3710, 3711, 3718, 3722, 3742, 3760, 3764, 3785, 3866, 3875, 3878, 3945, 3947, 3948, 3951.]

CRIME AND DELINQUENCY

3832. Berthold, F. *Die Entwicklung der Moral Insanity und der heutige Stand der Zurechnungsfähigkeit.* (The development of moral insanity and the present status of responsibility.) München: Markus, 1937. Pp. 95.—R. R. Willoughby (Brown).

3833. Derombies, M. *Le régime des aliénés criminels et délinquants en Angleterre et en Écosse.* (suite et fin). (The law regarding psychotic criminals and delinquents in England and Scotland. Cont. and concl.) *Ann. méd.-psychol.*, 1937, 95, Part 1, 536-559.—Under the Prevention of Crime Act of 1908, convicts who have been sentenced for the third time may be given an indefinite sentence of from 5 to 10 years. The purpose is to prevent recidivism by discharging the convict when he is in condition to adjust outside rather than at the end of an arbitrary sentence. The system of probation was started in 1907. It depends chiefly on probation officers who study the social and hereditary causes of crime and supervise criminals and delinquents not committed to institutions and those out on parole from institutions. In short, the whole modern viewpoint is to judge and treat the criminal rather than the crime. Several private agencies have helped to further the psychiatric and social treatment of criminals and delinquents. The reforms have been gradual, so that "the English judge becomes a physician in spite of himself." In Scotland the laws are similar to those in England, but a little more liberal in sending the criminally insane to regular mental hospitals and thus freeing them from the supervision of the courts.—M. B. Mitchell (Bellevue Hospital).

3834. Durea, M. A. The emotional maturity of juvenile delinquents. *J. abnorm. soc. Psychol.*, 1937, 31, 472-481.—Using norms for non-delinquents as a basis for comparison, juvenile delinquents, age for age, are emotionally retarded as measured both by total scores on the interest-attitude tests and by scores on separate tests. The extent of emotional retardation varies somewhat with life age. An insignificant relationship is found to exist between emotional age and degree of delinquent behavior. Although the co-variation between emotional age and the delinquency index is of only moderate significance, yet the distinctive fact of emotional retardation among delinquents suggests that maturation of emotional behavior is probably of as much significance as intelligence and other variables in a more complete understanding of the personality of the juvenile delinquent.—C. H. Johnson (Boston Psychopathic Hospital).

3835. Glueck, S., & Glueck, E. *Later criminal careers.* New York: Commonwealth Fund, 1937. Pp. xi + 403. \$3.00.—A follow-up study of the group of ex-prisoners reported in the authors' *500 Criminal Careers* five years later, which is ten years after the expiration of reformatory sentence. The major question which it is the purpose of the study to answer is: What are the influences of time, with its inevitable effect on psychological, biological, and social processes? A general improvement of the group as a whole both in environment and behavior was found. A comparison of the incidence of delinquency with non-delinquency in relation to various factors such as industrial status, use of leisure, etc., indicated that improved behavior accompanied improvement in these factors. However, it is indicated that the improvement in these respects was indirectly due to the factor of maturation by aging. The most marked difference between those who improved and those who did not lies in the mental or emotional difficulties, which are found much more frequently in the latter. Various conclusions are drawn, especially with regard to penal practice. Besides a predictive table for forecasting over a ten-year span the probable behavior of men committed to a reformatory, the quantitative material is elaborately presented in tables. Index.—D. Shakow (Worcester State Hospital).

3836. Mathews, C. O. Factors which contribute to undesirable overt behavior. *J. consult. Psychol.*, 1937, 3, 41-48.—Two groups of thirty secondary school boys were rated by teachers on the Haggerty-Olson-Wickman rating schedules with respect to overt behavior. Comparisons were made concerning age, ability, achievement, home and economic conditions, personal traits and adjustments, physical, social and emotional factors.—P. S. de Q. Cabot (Simmons).

3837. Mayer, L. *Das Verbrechen in Hypnose und seine Aufklärungsmethoden.* (Crime in hypnosis and methods for its solution.) München, Berlin: J. F. Lehmanns Verl., 1937. Pp. 221. RM. 7.60.—R. R. Willoughby (Brown).

3838. Molitch, M. Endocrine disturbances in behavior problems. *Amer. J. Psychiat.*, 1937, 93, 1175-1180.—A group of 269 boys, between the ages of 9 and 17, with endocrine disorders were studied. This group composed 25% of the resident institution population. Children with pituitary disorders represent about half the group. As a group, the children with endocrine disorders are not different from the remainder of the population in intelligence or in causes for commitment. Boys with undescended testes are brighter, while those with hypergonadism are more retarded than the control group. There was a slightly higher incidence of truancy among the endocrine group. The children of the endocrine group were characterized more negatively than the control group.—R. Goldman (Boston Psychopathic Hospital).

3839. Roucek, J. S. The mind of the prisoner. *J. abnorm. soc. Psychol.*, 1937, 31, 375-383.—Every prison, whether of the most modern or most obsolete character, is characterized by an abnormal atmosphere, intensified by the fact that all the men gathered there are stigmatized by having been convicted and placed in a penal institution. Some prisoners find outlet in day-dreams; they admit spending hours upon hours imagining the various objects of their desires, which range from juicy steaks to voluptuous women. Others spend most of their time enjoying themselves thinking about all the things they will do when they are released from prison. A characteristic of a number of prisoners is that their day-dreams are so repetitious and constant that often a prisoner becomes convinced that his day-dreams have a basis in reality. In nearly every case the inmate feels that his conviction is unjust, that he had been railroaded, that the police "had it in for him." The average IQ's of prisoners are very low. There is generally a resentment against any schooling and training. Most of the prisoners talk *at*, rather than *with* their associates. Although the problem of sex is overlooked and neglected in American prisons, it is one of the most serious problems.—C. H. Johnson (Boston Psychopathic Hospital).

3840. Selling, L. S. A psychiatric technique for the examination of criminals. *Amer. J. Psychiat.*, 1937, 93, 1097-1108.—The examination procedure should be made with the idea in mind of doing therapeutic and preventive work rather than merely making a decision as to sanity. The criminological clinic needs to develop different techniques from other psychiatric clinics, because it is not to the interest of the offender to talk freely. A few samples of the new techniques are given.—R. Goldman (Boston Psychopathic Hospital).

3841. Selling, L. S. The prison psychiatrist. *Ment. Hyg., N. Y.*, 1937, 21, 271-279.—Since the realization that crime is a psychiatric as well as a sociological problem, psychiatrists have been introduced into prisons. Though it is necessary for the psychiatrist to obtain the cooperation of the convict, in court the psychiatrist is often made to bear the

brunt of the conviction and subsequent punishment, and his purpose is therefore defeated. Another difficulty is the tendency of the convict never to speak frankly for fear that what he says will be used against him. These difficulties can be overcome, however, if the psychiatrist establishes such a relationship with convicts that they will trust him and aid him in the handling of newer convicts, and also establishes a relationship with the officers of the prison such that he may be in a position to help the convict as well as the officers. He must not forget that he has a responsibility to society. He should not be a disciplinarian, but should cooperate in plans for a troublesome person. To accomplish these things he must be adequately trained and also have adequate help from both trained personnel and inmates.—P. Brand (Children's Village, N. Y.).

3842. Többen, —. Kriminalbiologie und Bewährungsproblem. (Criminal biology and problems of social protection.) *Dtsch. Z. ges. gerichtl. Med.*, 1937, 28, 52-60.—P. L. Krieger (Leipzig).

3843. Vervaeck, L. Anormaux et défense sociale. Comment concilier les exigences de la défense sociale à l'égard des criminels anormaux avec les nécessités de leur assistance et leur reclassement. (The abnormal and social defense. How to reconcile the needs of social defense in regard to abnormal criminals with the necessity of helping and reclassifying them.) *Ann. méd. psychol.*, 1937, 95, Part 1, 513-535.—In the Belgian prisons about two-thirds of the prisoners were found to be in bad physical or mental condition. An indeterminate sentence is desirable for all such cases. Their release should be gradual, conditional at first, and subject to certain conditions, such as sobriety and steady employment. Sometimes the prisoners are placed temporarily in special buildings where they are free to go out during the day to look for work. Frequently they are allowed out for a few days or weeks on trial. If they make a satisfactory adjustment they may be paroled under supervision and finally discharged. The work with recidivists and vagabonds is mentioned especially.—M. B. Mitchell (Bellevue Hospital).

3844. Volwassen, —. Der Lügenentdecker. (The lie detector.) *Krim. Mh.*, 1937, 11, 79-81.—Volwassen describes the lie detector which he saw at the University of California. The instrument is not used in Germany. He considers it very reliable in skilled hands, and especially valuable in picking out the culprit among a group of suspects. The reactions of American courts to the test are divided. Its possibilities have not yet been so exhaustively studied that it commands general and unreserved recognition. The question whether a person could be forced to submit to it against his will is undecided, since in practice it has been used only on the willing.—M. E. Morse (Baltimore).

[See also abstracts 3766, 3771, 3934, 3944, 3949, 3950.]

INDUSTRIAL AND PERSONNEL PROBLEMS

3845. Basler, A. *Über das Marschieren mit gekreuzten Schritten und dessen Zweckmässigkeit.* (On marching with crossed or alternating rhythm and the usefulness of this method.) *Arbeitsphysiologie*, 1935, 9.—By placing a strip of paper upon the sleeve of a soldier and an inscribing stylet upon that of the neighboring soldier, the author was able to record the collisions of the upper limbs during different forms of marching. The results show that collisions are more frequent and intense in the customary form than in crossed rhythm marching, in which one person begins marching with the right foot and his neighbor with the left.—(Courtesy *Année psychol.*)

3846. Beuttell, A. W. *The relation between illumination and industrial efficiency. I. The effect of size of work.* *Rep. industr. Hlth Res. Bd.*, 1935. Pp. 14.—R. R. Willoughby (Brown).

3847. Chweitzer, L. *Sur la question du pronostic psychotechnique d'après les courbes d'apprentissage.* (The problem of psychotechnical prediction from learning curves.) *Année psychol.*, 1936, 36, 103-118.—The problem of the validity of the learning curve as a means of determining the limit of attainment and as a diagnostic tool in aptitude testing is discussed. The equation proposed by R. S. Gariayeva is employed. By means of this equation, after experimentally determining three or more points, the nature of the individual's learning curve may be obtained by extrapolation. In comparing predicted with actual learning curves it was found that the predicted curve represented only a general tendency, due to the influence of change in attitude during the training period. The author suggests that the change in attitude may be an important phase in the learning process.—E. T. Raney (Brown).

3848. Dombrowsky, H. *Warum Unfälle?* (Why accidents?) Braunschweig: Vieweg, 1935. Pp. 97.—The author discusses the question of the factors responsible for accidents in industry. He takes into account the influence of fatigue, deficiencies of a somatic or psychic nature (errors of attention, command, discipline, adaptation, intelligence, etc.), pathological processes (alcoholism, depression, neurosis, etc.). He gives special study to Marbe's law that chances of accident are greatest in the individual who has already had the greatest number of accidents. He has concluded from a study made upon a group of apprentices that accidents are least frequent among those individuals who are most successful in aptitude tests.—(Courtesy *Année psychol.*)

3849. Gemelli, A. *Le limitazioni fisiologiche e psicofisiologiche del volo in aeroplano.* (The physiological and psychophysiological limitations of airplane flying.) Pavia: 1935. Pp. 66.—The human organism is subjected almost to the limit of its capacity to the influence of excessive variations to which it has to adjust during flight in an airplane. There are many factors with which the organism has to cope: speed of displacements and accelerations,

deviations of the body, fatigue, altitude, emotional reactions, etc. The author makes a plea for mechanical aids for the overburdened sensory apparatus.—(Courtesy *Année psychol.*)

3850. Lahy, B. *Les conducteurs de "poids lourds." Analyse du métier, étude de la fatigue et organisation du travail.* (Truck drivers, analysis of work, study of fatigue and organization of work.) *Travail hum.*, 1937, 5, 35-54.—A portable laboratory was established in a truck for psychological and physiological examinations. Examinations were conducted at various stations on a 16- to 18-hour regular truck route. Various psychological and motor tests show little effect of the prolonged driving, but reaction time and the dynamometer are quite sensitive to this variable. Fatigue is not due entirely to prolonged work, but also to interference with normal night and day habits. Compulsory rest periods are recommended.—H. E. Burit (Ohio State).

3851. Lange, J. K. *Das Lichtbild im Dienste der Persönlichkeitskennzeichnung und Eignungsfeststellung.* (The use of the photograph in the determination of personality and ability.) *Industr. Psychotech.*, 1936, 13, 300-306.—An experiment was set up with 100 male and 21 female subjects, 16 to 18 years old. Photographs were taken of each of the subjects. These pictures were given to nine judges, with the following instructions: "Two qualities are necessary for the driver of an automobile, attention and reaction. With this in mind sort these pictures into three classes, good, average, poor, according as you see these qualities." Of the judges six were drivers and eight were men. All had training in some field of psychology and industry. The results showed 54.8% correct placement of the subjects. The conclusion is that it is impossible to achieve accurate deductions of the ability to operate an automobile from photographs.—J. C. G. Seidl (Manhattan College).

3852. Moede, W. *Missverständnisse ohne Ende in der angewandten Psychologie der Gegenwart.* (Misconceptions without end in present-day applied psychology.) *Industr. Psychotech.*, 1936, 13, 289-300.—The article is written to correct some of the misconceptions which have appeared. The history of applied psychology is traced from its beginnings in theoretical psychology. The main difficulty seems to lie in the relative certainty of psychometrics and especially in aptitude testing. Certainty comes from mass examinations. These tests are merely the tools with which the industrial psychologist works. The impossibility is admitted of giving to any individual his exact numerical value on any test, but his approximate level can be found. As in the technical fields, so also in the psychological field the experiment is analyzed, divided, summed, and the results recorded. Research on aptitudes has been carried on in almost all fields; we can now distinguish many of them. Investigators have demonstrated many character and personality traits which can be differentiated. The aim of aptitude testing is the determination of

vocational fitness, in both ability and personality, in order to place the individual where he will be happiest and therefore do his best work.—J. C. G. Seidl (Manhattan College).

3853. Mourgues, P. *L'oeil et la conduite des automobiles*. (The eye and automobile driving.) Paris: Jouve, 1935.—The author studied the effects upon the eye of different colored lights seen by drivers of automobiles. The subject is dazzled by a beam furnished by a bulb which is either white or colored. Experiments relative to the determination of time of readaptation necessary to normal vision after a prolonged glare give 40" in white light, 4" in yellow light.—(Courtesy *Année psychol.*)

3854. Selling, L. S. *The physician and the traffic problem*. *J. Amer. med. Ass.*, 1937, 108, 93-95.—The driver may be predisposed to having accidents in driving because of physical and mental deviations which are detectable by adequate medical examinations. Traffic accident prevention is a public health problem and presents itself as a relatively unexplored but legitimate field for medical interest.—D. J. Ingle (Mayo Foundation).

3855. Selling, L. S. *The psychological approach to the traffic problem*. *Sri. Mon.*, N. Y., 1937, 44, 547-554.—A complete understanding of the make-up of the individual, his attitudes as well as his physical structure, is important in enabling one to predict accident-proneness. At the clinic with which the writer is associated, three types of tests are given the subjects—a physical examination, to ascertain physical defects; psychophysical tests (reaction time, judgment ability of various kinds); and a "mental hygiene" test to ascertain not mental disease, but the less obvious though equally important deviations in mental processes.—O. P. Lester (Buffalo).
[See also abstracts 3604, 3612, 3626, 3884, 3888, 3891.]

EDUCATIONAL PSYCHOLOGY

(incl. Vocational Guidance)

3856. Bent, R. K. *Relationships between qualifying examinations, various other factors, and student teaching performance at the University of Minnesota*. *J. exp. Educ.*, 1937, 5, 251-255.—The aim of this study is to evaluate the relative merits of qualifying examinations and to attempt to show their relation, with various other factors, to student teaching performance in the secondary and elementary school. The other factors were aptitude tests, hours of credit, and honor-point ratios. The criteria of teaching performance consisted of judgments made by critic teachers and supervisors. Coefficients of correlation between the conditioning factors and the criteria were not high enough to predict the performance of individuals with any great improvement over chance. The highest predictors were honor-point ratios and hours of credit, ($r = .45, .46$).—H. W. Korn (Pittsburgh).

3857. Bent, R. K., & Douglass, H. R. *Differences in the performance of departmental groups of*

student teachers on qualifying examinations at the Univ. of Minn. Sch. & Soc., 1937, 45, 726-727.—Examinations in professional subject matter, general English, and major teaching subject were given to 1084 juniors in the College of Education in 1932-3 and 1933-4. 45% of the failures occurred in the departments of agriculture, home economics, nursing education and physical education for men. Few students in English, history, mathematics and zoology failed, and no English major failed the general English examination. It is concluded that departmental standards should be used in the English and education examinations. The passing students were distinctly superior in intelligence to the failing students. It is suggested that success in physical education, nursing education and vocational education does not require as great mental ability, command of English, and professional knowledge as does success in teaching academic subjects.—M. Lee (Chicago).

3858. Boda, S. v. *Tervezet az érettségi vizsgálatokhoz kapcsolódó válogató értelmiségi vizsgálat és a személyi megfigyelő napló tárgyában*. (Sketch of an elective examination of intelligence and a personal observation diary of middle-school pupils near the leaving examination.) Budapest: 1935. Pp. 36.—P. Ranschburg (Budapest).

3859. Boda, S. v. *Embernevelés és lélektan*. (Human education and psychology.) *Mag. psych. Szle*, 1934, 7, 1-16.—P. Ranschburg (Budapest).

3860. Briggs, T. H. *An uncultivated field*. *Teach. Coll. Rec.*, 1937, 38, 637-647.—A review of the procedures of research in education, concluding that unless marked changes are made the present pseudoscience will continue to be neither vital nor effective.—J. M. Stalnaker (Princeton).

3861. Cattell, R. B. *A quoi servent les examens?* (Of what use are examinations?) *Pour l'ère nouv.*, 1937, 15, 13.—The author criticizes the present system of examinations. He reports a recent experiment carried on at Leicester: in place of the usual examination for promotion, an intelligence test and two character tests (persistence and facility) were given, and results were found to be superior to those obtained from the ordinary type of examinations.—M. H. Piéron (Sorbonne).

3862. Challman, S. A. *As the psychiatrist sees the teacher*. *Understanding the Child*, 1937, 6, 18-20.—R. R. Willoughby (Brown).

3863. Clausse, A. *Analyse ou syncrétisme dans la compréhension d'un texte latin*. (Analysis and syncretism in the comprehension of a Latin text.) *Arch. belges Sci. Educ.*, 1936, 1, 187-195. *Méthodologie du latin et pédagogie expérimentale*. (Methodology in Latin and experimental pedagogy.) *Ibid.*, 322-333.—The author analyzed the different types of translation of 40 Latin phrases given by 235 boys, students in a secondary school, who had been placed in five different intelligence groups as determined by Lahy's test of logical intelligence. In the youngest group (13-14 years) the type was dominant which

the author terms syncretic: the pupil, understanding intuitively certain elements which were the simplest and the most superficial, was able to construct a phrase which offered a certain real or merely verbal cohesion but the sense of which differed more or less widely from that required by the Latin text. This group did not possess the power of analysis which is indispensable for the correct comprehension of the task. With increase in mental level this syncretism gave way progressively to the analytic process imposed by methodology. Perfection was not reached; however, the groups studied were accidentally somewhat low in IQ. The author drew certain conclusions from his results as to the degree of maturity necessary for the study of Latin, the desiderata of a prognostic test, and the methodology of the teaching of Latin. His second paper develops these conclusions. He criticizes the methodology now in favor whereby the teaching of Latin begins with the study of the elements (declensions and conjugations), and proposes that translation, which may be even intuitive, be substituted, the context being made of immediate interest to the pupil. The elements of the text should be considered secondarily. He emphasizes the necessity of translation for the control of exactness of comprehension.—*R. Nihard (Liège)*.

3864. **Commins, W. D.** *Principles of educational psychology*. New York: Ronald Press, 1937. Pp. xiv + 596. \$3.00.—The genetic approach to learning and development is followed, and is limited to the mental aspects of development. Basic concepts employed are considered in the light of divergent psychological points of view, including that of the Gestaltists as well as those of outstanding American psychologists. Three chapters are devoted to discussion of ability, its variation, measurement, and growth. A relatively advanced discussion of statistical procedures is introduced in an early chapter. Intelligence is discussed at length in three chapters, with heredity and its relation to mentality absorbing two more. Various aspects of learning, treated in a chapter each, include the principles and laws of learning, habits and skills, memory, transfer of training, motivation, thinking, and creative imagination. The concluding section of two chapters is concerned with the nature, development, and integration of personality and their role in school adjustment. Experimental evidence and illustrations are drawn upon extensively where such support is pertinent.—*D. W. Bailey (Mount Holyoke)*.

3865. **Congdon, N. A.** *Differences in the achievement in geography, civics and history, and general science of teachers college entrants from different sections of the country and from rural and urban populations*. *J. exp. Educ.*, 1937, 5, 274-277.—The data presented in this study show that the test scores made by college entrants in geography and general science are affected both by the locality of the institution which they are entering (east or west) and by the size of the population unit (rural or urban) from which they came. These factors do not have any effect on test scores made in civics and

history. It is concluded that students in the small western high schools have experiences, due to their environment, which favor the development of concepts in geography and science. Therefore special attention should be given to the vitalization of geography and science in the large eastern schools in order to compensate for the lack of actual experience in these fields.—*H. W. Karn (Pittsburgh)*.

3866. **Coxe, W. W.** *The influence of pupil grouping on the development of non-intellectual qualities*. *Proc. Inst. except. Child; Child Res. Clin.*, 1936, 3, 31-35.—The author believes that we must look to sociology for help in the effective development of those qualities of character and personality which are necessary for membership in a group. The contributions of Sorokin, Bernard, and Chapin are considered in relation to the education of the mentally subnormal child. Grouping of individuals is advised, with the understanding that each individual should have contact with several groups and that membership in these groups should be voluntary when possible.—*M. Keller (Brown)*.

3867. **Cureton, E. E.** *The accomplishment quotient technic*. *J. exp. Educ.*, 1937, 5, 315-326.—It is the author's primary contention that the accomplishment quotient cannot be interpreted as a direct measure of school drive or effort, or of teaching efficiency. In a single class or school the achievement test is as much affected by heredity as is the intelligence test, and the intelligence test is as much affected by environment as is the achievement test. The heredity and the environment involved are different in the two tests, however. Therefore the AQ actually expresses more or less crudely the ratio of school effort, attitude, background, and native scholastic capacity to general effort, attitude, background, and native general intelligence. The report is further concerned with the means of eliminating the varieties of random and systematic errors which generally beset the practical use of the accomplishment quotient.—*H. W. Karn (Pittsburgh)*.

3868. **Davis, R. A.** *The adaptability of psychological techniques to the study of schoolroom learning*. *J. educ. Res.*, 1937, 30, 663-671.—Discussion of psychological techniques available for the study of acquisition and retention, with suggestions for specific research problems.—*S. W. Fernberger (Pennsylvania)*.

3869. **Desclos, A. [Ed.]** *La correction des épreuves écrites dans les examens. Enquête expérimentale sur le baccalauréat*. (The correction of written examination papers. An experimental investigation of the baccalaureate examination.) Paris: Maison du Livre, 1936. Pp. 388.—This investigation was carried out by the "Commission française pour l'enquête Carnegie sur les examens et concours en France" in connection with the International Institute Examination Inquiry. It deals with the study of the baccalaureate examination, which the editors consider the most typical and most important of the French examinations. A questionnaire was sent to about 4000 persons, viz., professors,

presidents of associations of professors, etc., and their replies have been tabulated in the first section of the report, edited by G. Gastinel. Next an experimental study was made of the methods used in grading certain tests for the baccalaureate, the work being divided into two sections. The first section was under the direction of H. Laugier and D. Weinberg, and consisted in an extensive statistical analysis of the numerical data derived from an investigation of the method of correcting examinations. The second part consisted in an analysis of the reports of the examiners on their individual methods of correction. Seven chapters cover this report, being divided into subject fields: philosophy dissertations, edited by G. Beaulavon; physics, by J. Langevin; Latin translation, by G. Gastinel; English examination, by A. Desclos; mathematics, by G. Darmois; and two chapters on French composition, edited by P. Barrier. The final section of the study is written by Desclos and gives comments and suggestions derived from this extensive investigation. A great number of curves and statistical tables are given throughout the study.—*M. H. Piéron* (Sorbonne).

3870. Douglass, H. R., & Wind, K. Factors related to withdrawal from junior high schools in Minneapolis. *Elem. Sch. J.*, 1937, 37, 375-380.—The writers conclude that "the two factors most closely associated with elimination or retention in the Minneapolis junior high schools are retardation and socio-economic status." Closely related but less important factors are mental ability and school marks. "It is interesting to note that the number of magazines in the home is correlated almost as closely with persistence in school as is the score on socio-economic status."—*P. A. Witty* (Northwestern).

3871. Eells, W. C. Surveys of American higher education. New York: Carnegie Foundation for the Advancement of Teaching, 1937. Pp. 538.—*R. R. Willoughby* (Brown).

3872. Frederick, O. I., & Farquear, L. J. Areas of human activity. *J. educ. Res.*, 1937, 30, 672-679.—A study of 38 classifications of human activity may be combined into 9 major areas: (1) protecting life and health; (2) making a living; (3) making a home; (4) expressing religious impulses; (5) expressing esthetic impulses; (6) securing education; (7) co-operating in social and civic action; (8) engaging in recreational activities; and (9) improving material conditions. Bibliography of 34 titles.—*S. W. Fernberger* (Pennsylvania).

3873. Garth, T. R. Educational psychology. New York: Prentice-Hall, 1937. Pp. 340. \$2.50.—This is a textbook written from the standpoint of experimental psychology. The chapters deal with the following topics: heredity, the human organism, feeling and emotion, motivation, learning, observation, imagination and thinking, how to study, intelligence, measurement, and personality. References and test questions are given.—*W. S. Hunter* (Brown).

3874. Gates, A. I. The necessary mental age for beginning reading. *Elem. Sch. J.*, 1937, 37, 497-508.

—The writer presents data indicating that reading can be taught successfully to mentally five-year-old children, if careful adjustment of materials and methods to individual abilities and needs is made. The implication is avoided, however, that this is a desirable age for beginning reading instruction.—*P. A. Witty* (Northwestern).

3875. Gates, A. I. Failure in reading and social maladjustment. *J. nat. Educ. Ass.*, 1936, 25, 205-206.—Failure or serious retardation in learning to read is held to be one of the major causes for failure or backwardness in school work in general. Extensive evidence shows that failure in school work frequently results in truancy, delinquency, and other forms of personal and social maladjustment. With the assistance of the Civil Works Administration a project was organized in New York City in 1933 whereby the services of unemployed teachers were secured to detect, diagnose, and apply remedial instruction to the most serious cases of reading difficulty to be found in the system. From January, 1934, to the present from 350 to more than 700 teachers under the supervision of from 20 to 35 specialists have given remedial treatment to more than 12,000 pupils. An analysis of the results of approximately 2700 representative cases showed that although the pupils were mainly from the "dull normal" group, those with IQ's from 70 to 95, 95% made gains at least as great as the average pupil makes in the same time. Improved reading ability has resulted in better social and emotional adjustment and improved scholastic ability.—(Courtesy *Child Developm. Abstr.*)

3876. Goodenough, F. L. Selected references on preschool and parental education. *Elem. Sch. J.*, 1937, 37, 541-548.—53 technical and non-technical references are annotated.—*P. A. Witty* (Northwestern).

3877. Grossnickle, F. E. An experiment with two methods of estimation of the quotient. *Elem. Sch. J.*, 1937, 37, 668-677.—The writer reports his experimental investigation "to determine the relative merits of the apparent and the increase-by-one methods of estimating the quotient for a two-figure divisor." After 76 teaching days "there was no significant difference between the mean scores of the two groups." Moreover, "There is no discernible reason why division with a two-figure divisor cannot be learned in Grade IV when the pupil has attained a mental-age level of about nine years and seven months. This conclusion is contradictory to the findings of the Committee of Seven."—*P. A. Witty* (Northwestern).

3878. Gröwel, M. Haltung und Erziehung des Kindes bei den nordamerikanischen Indianern. (Status and education of the child among the North American Indians.) Hamburg: Evert, 1937. Pp. 82. RM. 3.30.—*R. R. Willoughby* (Brown).

3879. Hamilton, J. L. A method for reducing failures in plane geometry. *J. educ. Res.*, 1937, 30, 700-702.—A study of 87 pupils in first semester plane geometry in five junior high schools. It was

found that a point average of grades in mathematics and English in the lower grades gives some predictive value for success in beginning plane geometry.—*S. W. Fernberger* (Pennsylvania).

3880. *Hayward, W. G., & Ordway, N. M.* **Vocabularies of recently published preprimers.** *Elem. Sch. J.*, 1937, 37, 608-617.—In 15 recent preprimers 350 different words were found; the 311 words used four or more times are listed and their frequencies in the various books are reported.—*P. A. Witty* (Northwestern).

3881. *Hirsch, G.* **Plan zu einer charakterologischen Untersuchung erzieherlicher Konflikte.** (Plan for characterological study of educators' conflicts.) *Z. pädag. Psychol.*, 1937, 38, 65-76.—The mode of reaction to conflict in general is the best indicator of the depth and extent of personal development. School conflicts are usually due to the pupil's character development. National Socialism commands a definite attitude on his part, and the teacher must enforce obedience to these stern formative demands on the growing personality. Thus arise pupil-teacher and pupil-culture conflicts. The cause of mass-conflicts in residential schools, however, lies overwhelmingly in the teacher's personality, either lack of mental and physical superiority or inability to maintain discipline, which means characterologically that he does not respond to the pupils' strivings for bonds of union with him. These mass-conflicts may develop into a deep antagonism of the child toward society. Hirsch's solution for school conflicts is study by a characterologist, prolonged observation of test situations, and informal talks with both sides.—*M. E. Morse* (Baltimore).

3882. *Hobson, C. V.* **How much do teachers know about mental hygiene?** *Ment. Hyg., N. Y.*, 1937, 21, 231-242.—This study was designed to discover how well teachers know the most important principles of mental hygiene as it applies to children, but it was not concerned with the application of these principles. It was conducted under the direction of C. W. Tilford, head of the Department of Psychology of the University of North Dakota. To secure a list of the underlying principles of mental hygiene, periodicals, psychology texts, and mental hygiene texts were studied. Principles were listed as stated or inferred from the text. The opinion of experts was consulted. Through their ratings the final list of 42 principles was selected. Also a test was compiled exemplifying these principles. These also were rated. A cross section of teachers was selected to take the test. These included teachers in rural schools, supervisors, teacher-training students, and student teachers. Principles relating in some way to fear and to the relationships of adults to children showed the greatest percent of error. Enough teachers show a lack of knowledge in mental hygiene to justify training of all prospective teachers in mental hygiene. The experienced teachers have a better knowledge of mental hygiene than the inexperienced. It is recommended that educational periodicals publish lists of readings in mental hy-

giene, and that public libraries be requested to secure books on mental hygiene as it relates to both adults and children.—*P. Brand* (Children's Village, N. Y.).

3883. *Hockett, J. A., & Neeley, N. G.* **The vocabularies of twenty-eight first readers.** *Elem. Sch. J.*, 1937, 37, 344-352.—"Analysis of twenty-eight first readers shows that almost 2,800 different words are used. . . . The longest first reader contains five times as much material as the shortest. The largest vocabulary load is more than twice the smallest, and the highest average repetition is about four times the lowest. The more recent books tend to have significantly smaller vocabularies and increased repetition of words, and a slightly larger proportion of their words are found in the first five hundred of the Gates list."—*P. A. Witty* (Northwestern).

3884. *Hoppock, R., & Spiegler, S.* **An abstract of available literature on Diesel engine occupations.** *Occupations*, 1937, 15, 890-897.—*R. H. Brown* (Clark).

3885. *Kovács, A.* **Amerikai tantárgy-tesztekről.** (American school-knowledge tests.) *Gyermektanulmányi Füzetek*, 1936, 6, pp. 20.—An enumeration of the most used prognostic tests in English, French, German, Latin, mathematics, chemistry, general sciences, and health knowledge. Their classification is (1) choice, (2) completion, (3) true-false, (4) analogy, (5) correction of errors, (6) problem solution.—*P. Ranschburg* (Budapest).

3886. *Kyte, G. C.* **Causes of first-grade non-promotion in the light of measured intelligence.** *Elem. Sch. J.*, 1937, 37, 415-428.—The writer reports the causes given by teachers for non-promotion of 1485 first-grade pupils. The most common causes follow: immaturity, learns slowly, irregular attendance, low mentality, weak in reading, poor health. In terms of Binet test results, a majority of the children in the categories mentioned above (except "low mentality") possessed average intelligence.—*P. A. Witty* (Northwestern).

3887. *Landry, H. A.* **The relative predictive value of certain college entrance criteria.** *J. exp. Educ.*, 1937, 5, 256-260.—The purpose of this study was to establish the relative value of four college entrance criteria for the prediction of both average freshman scholarship and scholarship in specific subject-matter fields. Results show that differential predictions of freshman scholarship are more restricted than general predictions. In general, the best entrance element for general prediction is the mean of secondary-school, grade 12, adjusted final marks. The other elements ranked in order of their predictive value were the mean of Cooperative Test Service test scores, the verbal aptitude test of the College Entrance Examination Board scores, and the mean of the general College Entrance Examination Board marks. The secondary-school adjusted marks were found to be the best entrance element for differential predictions, with the Cooperative Test Service scores ranking a very close second. The verbal aptitude test scores are next in value, with the marks of the

College Entrance Examination Board tests providing the poorest prediction. Considerable variation exists in the predictive value of the different entrance elements in different subject-matter fields and in the different colleges studied.—*H. W. Karn* (Pittsburgh).

3888. **Lewis, D. S.** *Lewis' vocational chart.* Erie, Pa.: Author, 1936. Pp. 134.—(Not seen.)

3889. **MacLatchy, J. H.** [Ed.] *Education on the air.* Columbus, Ohio: Ohio State Univ., 1936. Pp. 263. \$3.00.—This volume presents the Proceedings of the Seventh Institute for Education by Radio. The papers cover general considerations for educational broadcasting, script preparation, production, school broadcasting and the use of broadcasting for demonstrations and critiques.—*E. D. Hunt* (Brown).

3890. **Marshall, M. V.** *A note on "the life-career motive and its effect on college work."* *J. educ. Res.*, 1937, 30, 703.—Correction of some computations in a former article.—*S. W. Fernberger* (Pennsylvania).

3891. **Maule, F.** *Men wanted; the new opportunities and what they demand.* New York: Funk & Wagnalls, 1937. Pp. 319. \$2.00.—A vocational guidance book for young men, explaining where the new opportunities lie and what qualifications are required to take advantage of them.—*R. R. Willoughby* (Brown).

3892. **McIntosh, G. F.** *Education and personality.* *Aust. J. Psychol. Phil.*, 1937, 15, 1-23.—In the present vogue for "practical" education, "personality" is said to be endangered by the cultural tradition. But the personality thus menaced is usually conceived more or less after the pattern of H. C. Link's definition. Not only is this concept of personality socially and psychologically indefensible, but culturally oriented educational programs further personality when conceived in a more suitable way. Link's conception is more in line with the program and aims of the Sophists as compared with the ideals of Socrates. "It is clear that the education of the go-getter or the tub-thumper or his ilk cannot be made the aim of the schools"—as seems to be demanded by the theory of the "P. Q."—*H. D. Spoerl* (American International College).

3893. **McLaughlin, K. L.** *Selected references on kindergarten-primary education.* *Elem. Sch. J.*, 1937, 37, 618-626.—59 annotated references are listed.—*P. A. Witty* (Northwestern).

3894. **Moore, F., & Hamblen, A.** *Sixth grade health awareness in Massachusetts.* *J. educ. Res.*, 1937, 30, 684-693.—Results of the giving of a test of health awareness to 2033 sixth-grade children in 46 schools in 21 communities, largely with populations of less than 25,000, indicate that medium-sized towns did slightly better than rural communities and much better than cities; and that girls were generally better than boys. The questions on food and food habits showed a fairly large percentage of correct answers.—*S. W. Fernberger* (Pennsylvania).

3895. **Mosier, C. I.** *Factors influencing the validity of a scholastic interest scale.* *J. educ.*

Psychol., 1937, 28, 188-196.—240 students at the University of Florida filled out the Strong interest blank and this was scored by the Young-Estabrooks studiousness scale. The validity of the scale for liberal arts students is verified, but it is not a valid measure of honor-point average when used with students in the technical schools or the school of business administration.—*A. W. Melton* (Missouri).

3896. **Nemes-Müller, M.** *A családi iskola életkeretei, nevelő és oktató munkája.* (The family school, its frames of life, educational and teaching work.) Budapest: 1936. Pp. 434.—I. Character, subject and course of instruction. A. Fundamental ideas of the "new education." Chief types of experimental schools. B. Ideal evolution of the family school. II. Fundamental principles of the acquisition of knowledge. III. Some ways of special instruction. IV. Education from child to man. A. The individual for the community. B. Evolution of the individuality.—*P. Ranschburg* (Budapest).

3897. **Newland, H. C.** *The role of authority in pupil and teacher relationships.* *Understanding the Child*, 1937, 6, 15-17.—*R. R. Willoughby* (Brown).

3898. **Olasz, P.** *Az iskolapszichológus mint a diákság bizalmasa.* (The school psychologist as the person with the confidence of pupils.) *Iskola és Egészség*, 1935-36, 4, 319-324.—The obligation as well as the right of discretion does not belong to the class teacher, whereas it may belong to the school psychologist. The author has verified this statement of W. Hoffmann on more than 8000 Transylvanian and Hungarian school-boys in 16,000 private conferences. The list of their difficulties includes: (1) school (learning, placement); (2) family (differences with parents, brothers and sisters, etc.); (3) friendship; (4) love; (5) associations (boy scouts, church problems); (6) struggle for pure life; (7) religion (doubts, skepticism); (8) society (capitalism); (9) vocational problems; (10) material difficulties; (11) sports; (12) getting out of bad habits. There is a necessity for courses for the training of school psychologists.—*P. Ranschburg* (Budapest).

3899. **Patry, F. L.** *How psychiatric services are being utilized by schools of New York state.* *N. Y. St. J. Med.*, 1935, 35, 1101.—*R. R. Willoughby* (Brown).

3900. **Petersen, I. B.** *The reading-readiness program of the Ironwood public schools.* *Elem. Sch. J.*, 1937, 37, 438-446.—A "reading-readiness program" is described for children whose mental and readiness test scores indicated insufficient ability or maturity for reading instruction in the first grade. Many experiences were provided for these children; then related reading materials were introduced. Moreover, comprehensive studies were made of each child. Favorable results on reading tests at the end of the year are reported.—*P. A. Witty* (Northwestern).

3901. **Postel, H. H.** *The effect of adapting reading materials to seriously retarded pupils.* *Elem. Sch. J.*, 1937, 37, 536-540.—Stories of interest to upper-grade children were rewritten in terms of

third and fourth grade vocabularies and presented, in mimeographed form, to over-age, mentally retarded children. Favorable results are reported.—*P. A. Witty* (Northwestern).

3902. Pratt, K. C., & Wise, V. Do marking systems based upon the normal probability curve insure an equitable distribution of marks in elective curricula? *J. exp. Educ.*, 1937, 5, 261-270.—In the college at which this investigation was conducted, the election of courses by departments is not random but selective. Hence some departments do not show in their students a representative sampling of the abilities of the freshman class. In such cases a grading system based upon the theory of representative sampling is not justifiable. The general conclusion to be drawn from these facts is that no fixed and arbitrary system of marking which ignores the differential selection of ability, whether temporary or relatively constant, can survive close scrutiny and investigation. Further, such a differential if operating on a national scale will inevitably prevent the use of standardized tests and national percentiles which are intended to obtain an index of individual achievement which will make a valid comparison possible.—*H. W. Karn* (Pittsburgh).

3903. Pringle, R. W. The junior high school; a psychological approach. New York: McGraw-Hill, 1937. Pp. 420. \$3.00.—*R. R. Willoughby* (Brown).

3904. Robinson, B. B. Teacher selection and mental health. *Understanding the Child*, 1937, 6, 21-24.—*R. R. Willoughby* (Brown).

3905. Smith, W. S., Bickford, F. E., Davis, D. A., & Otto, H. J. Age-grade and grade-progress data for children in one-room rural schools. *Elem. Sch. J.*, 1937, 37, 336-342.—The writers report the age-grade status and grade progress of children in nearly 300 one-room rural schools in three Michigan counties. The large amount of under-ageness found is attributed not to high achievement or acceleration but to the general practice of enrolling children in school at age five (and to their subsequent regular promotion). The writers assert that their "theoretical goal is to have zero per cent of under-ageness and over-ageness, zero per cent of retardation and acceleration, and 100 per cent of normal-ageness and normal progress."—*P. A. Witty* (Northwestern).

3906. Steele, D. C. Correlation of English grades with language grades in the Westinghouse High School. *Pittsb. Schs.*, 1937, 11, 144-150.—Coefficients of correlation between the grades achieved by 651 high school pupils in English and the grades achieved by these same pupils in French, Spanish, Italian, and Latin were .66, .63, .58, and .58 respectively. The method of selecting language pupils wholly on the basis of their English grades was found to be reliable in approximately 62% of the cases. Over 5 times as many pupils failed in the languages as failed in English.—*M. Keller* (Brown).

3907. Stuit, D. B., & Jurgensen, C. E. The effect of method of presentation on spelling scores. *J. exp. Educ.*, 1937, 5, 271-273.—While scoring the

spelling sub-test of the Cooperative English test, Series II (1935 form), which had been administered to a large group of college freshmen, it occurred to the authors that the method of presentation used in this test might not be very effective in securing a measure of a student's real ability to spell. In this test the ability to spell is measured by the ability to identify misspelled words in themes which makes up the test of English usage. Along with misspelled words are errors in grammar, punctuation, etc., all of which are to be corrected by the student in a space provided at the right of the page. It seemed to the authors that the spelling test was really a measure of proofreading ability, and for that reason they determined to measure spelling ability by another procedure. The test employed to serve as a check on the Cooperative English test was the dictation test. This test consisted of 53 misspelled words which are found on the Cooperative test. The comparative evidence points to the conclusion that if spelling ability per se is to be measured, the dictation method is productive of distinctly higher scores than those obtained from the Cooperative English test.—*H. W. Karn* (Pittsburgh).

3908. Sturtevant, S. M. Some disturbing conflicts between theory and practice in guidance. *Sch. & Soc.*, 1937, 45, 697-707.—The present popularity of the guidance or personnel movement, by attracting followers who misunderstand its basic principles, results in certain dangers in its practice. Respect for the personality of an individual, his need for a safe status based on self-respect and family solidarity, is essential to the theory of the movement, yet "instruments" are blindly used which through prying personal questions deeply hurt the sensitive child or awaken his hostility. Development of the personality and its integration are best furthered by devotion to a worthy social aim, yet the emphasis in practice is highly individualistic. "What do I want?" encourages a too self-centered consideration of life's problems. Learning occurs only when there is "readiness" and opportunity for satisfying experience, yet routinely scheduled interviews result in an attitude of passive acceptance or active resentment. The home room might be a small counseling unit, with teachers who could establish close rapport with their groups. The human organism acts as a unit, and as such its trends of development should be interpreted over a period of years; yet the tendency is to file health, social history, IQ, academic achievement, etc., separately. There is need for more workers who are well-adjusted emotionally and well-trained academically.—*M. Lee* (Chicago).

3909. Symonds, P. M. A plea for the integration of school guidance activities. *Teach. Coll. Rec.*, 1937, 38, 686-710.—This discussion traces the several lines of development in the guidance field and shows how their convergence on the child in school is resulting in confusion, misunderstanding, and professional friction.—*J. M. Stalnaker* (Princeton).

3910. [Various.] The education of the blind; a survey, being the report of the Joint Committee of

the College of Teachers of the Blind and the National Institute for the Blind. New York: American Foundation for the Blind, 1936. Pp. 368. \$2.00.—A reference work on the special problems connected with the education of the blind, based upon extensive research.—R. R. Willoughby (Brown).

3911. Viteles, M. S. Vocational guidance for the exceptional child. *Proc. Inst. Except. Child, Child Res. Clin.*, 1936, 3, 36-45.—The immediate need in the vocational guidance of defectives and advanced emotionally unstable individuals is "to scrap the policy of glorifying the inferior, to recognize that defectives cannot fit an ordinary environment, to provide suitable, inexpensive, extraordinary environments, and to direct our attention, effort and financial resources to the improvement of those individuals who can be of real use to themselves and to society."—M. Keller (Brown).

3912. Wagner, M. E., & Strabel, E. Predicting performance in college English. *J. educ. Res.*, 1937, 30, 694-699.—A study of 661 men and women students who entered the University of Buffalo from 1925 to 1929, except transfers from other colleges and those who failed during the first semester. There are considered: grades in English in school; in the Regents examination; the American Council Psychological Examination (whole and specific parts); Iowa High School Content Examination; and others. The best predictive instrument proved to be the weighted average of all academic New York State Regents Examination grades. During the years 1931-1932 a Cooperative English Test was administered to all freshmen and proved to have a predictive value about equal to the Regents examination weighted mean.—S. W. Fernberger (Pennsylvania).

3913. Washburne, C. Two methods of teaching high school algebra: a criticism. *J. educ. Res.*, 1937, 30, 680-683.—S. W. Fernberger (Pennsylvania).

3914. Washburne, C., & Morphet, M. V. Manuscript writing—some recent investigations. *Elem. Sch. J.*, 1937, 37, 517-529.—Data presented by the writers indicate "no sound reason for changing from manuscript to cursive [writing]. If the change is desired, however, it seems better to wait until approximately junior high school age, when the child's manuscript is thoroughly formed. At that time the transition can readily be made in six to twelve weeks with a self-instructive workbook." Additional conclusions are stated.—P. A. Witty (Northwestern).

3915. Washburne, C. W. The teacher's mental health. *Understanding the Child*, 1937, 6, 3-7.—R. R. Willoughby (Brown).

3916. Williams, C. L., & Whitaker, R. L. Diagnosis of arithmetic difficulties. *Elem. Sch. J.*, 1937, 37, 592-600.—There is reported a detailed account of the typical arithmetic errors made by children in grades IV-VIII of several Chicago schools. The need for individual diagnosis is emphasized.—P. A. Witty (Northwestern).

3917. Wilson, F. T. Correlations of vocabulary knowledge with other abilities and traits in grade I. *Elem. Sch. J.*, 1937, 37, 451-457.—This report presents correlations derived from measures of vocabulary with 76 other measures and appraisals (reading tests, letter tests, mental tests, psychophysical and personality measures) of the same first-grade pupils. The correlations ranged from $-.38$ to $.61$ (mean $.20$), indicating that "there were no significant relations between vocabulary knowledge and reading or between vocabulary knowledge and other abilities."—P. A. Witty (Northwestern).

3918. Wilson, F. T., & Burke, A. Reading readiness in a progressive school. *Teach. Coll. Rec.*, 1937, 38, 565-580.—25 pupils were given 3 reading readiness tests at the beginning of the first grade. Later in the year they were given 14 other reading tests. The interrelationships of the results are given and discussed. A discussion is included of how reading activities develop.—J. M. Stalnaker (Princeton).

3919. Yepsen, L. N. Psychological vagaries in the education of exceptional children. *Proc. Inst. Except. Child, Child Res. Clin.*, 1936, 3, 46-52.—The author points out that within the field of special education there are also exceptional children, that variabilities exist among those classed as deviates. Experimentation must continue in order that we may better understand the various types of children in need of special educational methods and treatment.—M. Keller (Brown).

3920. Young, C. W., & Estabrooks, G. H. Report on the Young-Estabrooks studiosness scale for use with the Strong vocational interest blank for men. *J. educ. Psychol.*, 1937, 28, 176-187.—Studiosness is defined as "the sum total of factors of personality and attitude which make for high college grades and which are not correlated with intelligence." After calculating an index of studiosness (the residual of the regression of grades on intelligence) for 583 male students at Colgate University, this index was used as the criterion for weighting items on various personality and interest tests. When the items were thus weighted, it was found that all the personality and interest tests tended to show a negligible correlation with intelligence and a low correlation with grades. The Strong interest blank seemed to yield the most significant measure. It showed an average r of $.35$ with scholastic standing, as opposed to an average r of $.45$ between scholastic standing and intelligence. In combination with intelligence scores the studiosness scale yields an average R of $.56$ with grades.—J. W. Melton (Missouri).

3921. Zyve, C. T. A suggestion for evaluating school activities. *Teach. Coll. Rec.*, 1937, 38, 648-659.—About 500 classrooms, including city, suburban and rural, grades 1 to 6, were asked by their teachers to "tell the things we have done in our group since school started." The results are classified in categories and the different groups compared.—J. M. Stalnaker (Princeton).

[See also abstracts 3606, 3612, 3697, 3759, 3784, 3830, 3925, 3945, 3947, 3948.]

MENTAL TESTS

3922. Chapanis, A. A note on the validity and difficulty of items in Form A of the Otis self-administering test of mental ability. *J. exp. Educ.*, 1937, 5, 246-248.—It was the purpose of this investigation to make validity and difficulty determinations on a group different from that on which the original item validities were established. The results show that for a relatively unselected group of adults such as was used in this study the general validity of the items is high, although the items are of less than average difficulty for this group. Further analysis of the data indicates that, with few exceptions, the item validities and difficulties of the Otis test (Form A—higher examination) do not consistently favor either sex.—H. W. Karn (Pittsburgh).

3923. Feller, D. Quelques observations critiques en vue d'une transformation du test d'intelligence mécanique de Stenquist. (Critical comments with a view to a revision of the Stenquist mechanical intelligence test.) *Année psychol.*, 1936, 36, 65-81.—The author presents a critical analysis of the principles of structure of the Stenquist test. A revised test is proposed by means of which an age level for mechanical intelligence similar to the Binet-Simon mental age may be determined. The test is constructed along the lines of the Binet-Simon test, with a battery of tests for each age level, with similar presentation and scoring methods. The time limit for each test item is fixed by the average for the age group involved. The only credit given for a shorter than average performance is the notation "superior."—E. T. Raney (Brown).

3924. Ferguson, H. H. Incentives and an intelligence test. *Aust. J. Psychol. Phil.*, 1937, 15, 39-53.—The Otis test was administered to schoolboys in this investigation of the effect of incentives. 156 subjects were used in the two groups, and the incentives included a money prize. No appreciable raising of the IQ resulted, and there was even a slight trend in the other direction. These results are consistent with Spearman's findings in regard to cognitive performance.—H. D. Spoerl (American International College).

3925. Kelley, V. H. An experiment with multiple choice vocabulary tests constructed by two different procedures. *J. exp. Educ.*, 1937, 5, 249-250.—This study was undertaken to determine whether a multiple choice word meaning test in which the alternate responses were selected from words which pupils confused with the stimulus word would result in a more valid test than a test in which the alternate responses were selected without any definite knowledge of their possible confusion to the pupil. In general, the results of the study lead to the conclusion that an attempt to get a valid test by the laborious task of tabulating the actual responses of pupils is hardly justifiable. The judgment of the test maker secures approximately the same results. However, the conclusion that a test maker can by an a priori process secure satisfactory alternate responses is not warranted. To secure an adequate

answer to this problem, additional experimentation in fields other than word meaning should be conducted.—H. W. Karn (Pittsburgh).

3926. Laboratoire de psycho-pédagogie du Dr. Decroly. Le test B. D. (Buyse-Decroly) collectif. (The B. D. group test.) *Arch. belges Sci. Educ.*, 1935, 1, 36 ff.—A description of the technique of the recent revision of the B. D. test and of the norms gained from an application of the test to 1149 children, boys and girls, from four to seven years of age.—R. Nihard (Liège).

3927. Laboratoire de psycho-pédagogie du Dr. Decroly. Nouvelle revision de test B. D. collectif. (The recent revision of the B. D. group test.) *Arch. belges Sci. Educ.*, 1936, 1, 315-321.—The laboratory, having taken under advisement the criticisms and suggestions offered by experimenters in this field, has brought about certain modifications in the B. D. test and has made new norms. These have proved that the test is sufficiently discriminative for the ages from four to seven years and suitable for the selection of nursery school children and children in the first two primary years of school.—R. Nihard (Liège).

3928. Murphy, L. W. The relation between mechanical ability tests and verbal and non-verbal intelligence tests. *J. Psychol.*, 1936, 2, 353-366.—The relationships between tests of mechanical aptitude and tests of verbal and non-verbal intelligence were investigated. The Thurstone centroid treatment revealed three factors accounting for the intercorrelations. These were suggested to be: (1) a factor dependent on the mental manipulation of relationships expressed symbolically; (2) a factor calling for speed of hand and eye coordination; and (3) a factor dependent on mental manipulation of spatial relations. The trait which has been called mechanical ability appears to be a complex of traits (2) and (3).—F. L. Reinwald (Brown).

3929. Quasha, W. H., & Likert, R. The revised Minnesota paper form board test. *J. educ. Psychol.*, 1937, 28, 197-204.—A multiple-choice form of the Minnesota paper form board test has been constructed in two forms that are equal in difficulty and internally consistent. The interform r was found to be .85, and the lowest correlation between the revised test and the original test was .75 (corrected $r = .94$). The revised test has a great advantage over the original in ease and objectivity of scoring. Norms for a number of groups, including engineering-school students and young and old adults, are given.—A. W. Melton (Missouri).

3930. Ryan, C. Ce que nous a enseigné la pratique des tests. (What the use of tests has taught us.) *Pour l'Ere nouv.*, 1937, 15, 6-8.—The conclusion to be drawn from extensive experience with tests in the United States is that their most fruitful and legitimate service is one of aiding individual personality and not one of eliminating and overcoming such personality.—M. H. Piéron (Sorbonne).

3931. Smets-Geunard, —. Le test B. D. (The B. D. test.) *Pour l'Ere nouv.*, 1937, 15, 12-13.—The

Buyse-Decroly test consists of 26 parts classified according to difficulty. The following items are tested: vocabulary, perception of quantities as a whole, esthetics, logic, resistance to suggestion, generalization, and judgment. After an application of the test to 1149 children (boys and girls) from four to six years of age, the author concludes that, in addition to its psychological value, the test is excellent as a means of selecting children belonging to the kindergarten and the first two years of primary school.—*M. H. Piéron* (Sorbonne).

3932. **Vernon, P.** *Quelques causes d'erreur en matière de tests mentaux.* (Certain causes of error in mental tests.) *Pour l'Ere nouv.*, 1937, 15, 8-11.—A critical survey of mental tests, particularly of the concept of intelligence quotient.—*M. H. Piéron* (Sorbonne).

[See also abstracts 3629, 3790, 3861.]

CHILDHOOD AND ADOLESCENCE

3933. **Abramson, J., & Le Garrec, S.** *Notes sur quelques corrélations psycho-motrices chez les écoliers normaux.* (Notes on certain psychomotor correlations in normal school children.) *Hyg. ment.*, 1937, 32, 1-8.—The authors used the Gurevich method as adapted and standardized by Ozeretzki. It was found to be reliable for determining the motor rating. The following essential elements can be analyzed: the static and dynamic coordination of movements, rapidity and precision, simultaneous and alternative movements, and the presence or absence of synkinesis. Correlations between the intelligence quotient and the motor quotient were obtained; they were .31 for girls and .30 for boys. The tests were found to be better adapted to boys than to girls.—*M. H. Piéron* (Sorbonne).

3934. **Bender, L.** *Group activities on a children's ward as methods of psychotherapy.* *Amer. J. Psychiat.*, 1937, 93, 1151-1173.—The functions of a ward for children's behavior problems should satisfy their needs, which are listed as: (1) free expression of the child's neurotic complexes, (2) relief from feelings of anxiety, guilt, inferiority and insecurity, (3) demonstrations of affection and approval from the adults who are serving him, (4) free expression of the child's feelings of affection, (5) free expression of the child's impulses for aggression, (6) opportunities for the child to become socially at ease and socially acceptable at his own value, and (7) crystallization for the child's ideologies which are suitable for himself and the social milieu in which he lives. The organization of the ward and the means by which these needs can be met are discussed under the headings: staff personnel, staff conferences, body interests, ward routine based on natural rhythm, puppet project, music project, art project, school-room activities, group play technique, group discussions, etc.—*R. Goldman* (Boston Psychopathic Hospital).

3935. **Bourjade, J.** *L'intelligence et la pensée de l'enfant.* (Intelligence and thinking in the child.) Paris: Alcan, 1936. Pp. 162. 10 fr.—The book

contains four chapters. The first deals with the place of child psychology in general psychology. The author believes that infancy is the nodal point in the morphology and physiology of the mind and that for this reason child psychology deserves to have high rank as a definite method of interpretation in the study of general comparative psychology. The second chapter discusses the nature and laws of intellectual development in the child. The third deals with the functioning of this intelligence, and the fourth reviews previous interpretations of intellectual development in children.—*M. H. Piéron* (Sorbonne).

3936. **Bridges, K. M. B.** [The development of emotions in the young child.] *Un. méd. Can.*, 1935, 64, 130.—In the second part of her study, Bridges points out that there is only one original emotion, a sort of basic excitement, which is present at birth, and at that time any sort of stimulus will bring forth the same response. In a short time this is split into two forms, joy and suffering. Further differentiation is associated by the baby with certain conditions, and definite motor responses are evolved on the basis of previous experience. The two primary emotions are subdivided into sixteen by the fifth year, and the basic excitement has split off three more.—(Courtesy *Child Developm. Abstr.*)

3937. **Dawson, M. A.** *Children's preferences for conversational topics.* *Elem. Sch. J.*, 1937, 37, 429-437.—The conversational topics reported are those discussed spontaneously by children in grades III-VI. "In general, children of the ages represented like to talk about their games and sports, their pets, their unique experiences, experiences of their families and friends, and trips which they have enjoyed. Young children seemingly have more general interests, a tendency to concentrate on a few topics being apparent with the older pupils. Some interests, such as family doings, appear to wane as outside interests, such as current events, begin to emerge."—*P. A. Witte* (Northwestern).

3938. **Gallagher, E. G.** *The adopted child.* New York: Reynal & Hitchcock, n.d. \$2.50.—A book intended primarily for present and prospective adoptive parents and for social workers. Twelve chapters: (1) Adoption of children began with the earliest family life. It has acquired legal sanctions which in America are directed toward the welfare of the child. (2) A procedure is outlined for those considering adoption. (3) Children are adopted for many reasons, but adoptive parents are not a class apart, nor are adopted children. (4) Fallacies with regard to heredity and environment are discussed, following Jennings. (5) Skepticism is justified as to the use of intelligence tests in adoption procedure. (6) Adopted children should be told that they are "chosen children" as soon as possible. (7) An illegitimate child almost invariably will profit more from adoption than from the care of an unmarried mother. (8) Illegitimate births are increasing. From every point of view, legal adoption of the illegitimate child promotes human welfare.

(9) Evidence proves fallacious the beliefs that a girl who has extra-marital relations is mentally subnormal, or has low morals or ungovernable passions, or a low degree of education, and that her child is subject to unfavorable prenatal influences. (10) Social workers need sympathy and understanding as well as skill. They should permit unwed mothers to make their own choice as to their babies. Social workers now form large pressure groups, not always devoted primarily to the interest of the underprivileged. (11) Certain states require unwed mothers to nurse their babies. An adoption nursery provides better care than can be guaranteed by such a regulation. (12) The Cradle of Evanston, Illinois, is described as a model adoption nursery. An appendix details adoption procedure in Illinois and summarizes it for other states and for Russia. Bibliography.—(Courtesy *Child Developm. Abstr.*).

3939. Hardy, M. C. Some evidence of an inverse relation between health history and behavior adjustment during childhood. *J. abnorm. soc. Psychol.*, 1937, 31, 406-417.—The data presented are from an investigation of a group of so-called normal white children selected primarily on the basis of willingness of their parents to cooperate in a long-time study. The findings cover the period from ages eight to thirteen years. Data relative to behavior were obtained from a number of different sources: schedules filled out by the teachers, reports from parents to the psychologist, questionnaires filled out by the pupils, and regular individual interviews. Inadequate as the data may be as a complete history of the resistance of these children to disease, they strongly suggest less frequent experience in the illness situation by the maladjusted, who were from the same socio-economic level as the average of the group under observation. The differences were not large, but regardless of whether behavior was judged on information from teachers, or from pupils, or was based on interview records, the trend of the findings was the same. The critical ratios in many of the comparisons approximate significance. There was also the indication that the illnesses which the maladjusted had were of a less serious type than those to which the well-adjusted had been subjected.—C. H. Johnson (Boston Psychopathic Hospital).

3940. Hattwick, B. W. Mental-hygiene considerations in the care of convalescent children. *Ment. Hyg.*, N. Y., 1937, 21, 263-270.—A study devised to determine the natural limitations and possibilities of nursery-school techniques in hospitals. The observations were carried out in two hospitals, one with no staff provision for play and the other with a play supervisor and definite play facilities. Though there was a difference in play and social opportunities in the two hospitals, the findings were similar. The nurses have comparatively little time to devote entirely to the play and social interests of the sick child. They adopt the attitude of doing things for the child instead of encouraging self-help. Conversation consisted mostly of negative commands. Undesirable expectancies were noted in conversations initiated by the nurses. The child's play needs

were not adequately met. Encouragement of self-help, positive suggestions, expectancies of good behavior, and adequate provision of play materials are necessary for the enriched social experience and development of the sick child.—P. Brand (Children's Village, N. Y.).

3941. Hellpach, W. Die Gemütsregung (Thymose) der Geschlechtsreife im Zuge der jugendlichen Gesamtentfaltung. (Pubertal excitability—thymosis—in the total course of adolescent development.) *Z. pädag. Psychol.*, 1937, 38, 108-109.—The eidetic stage is preceded by noesis, which begins with the "why" age and is followed immediately by the explosive pubertal thymosis in which the child mentality is overcome and adult character is established. Thymosis begins at about 13 years with an "uproar" of will and a changed and often dreamy mood. It may continue until terminated by vocational or marital fulfillment. The three phases are interwoven in adult character, and may recur in reverse order, although mildly and therefore overlooked. This process leads to the understanding which the past generation has for the coming one. Civilization makes each stage more precocious biologically, sociologically and psychologically, while delaying its realization. These mutual tensions determine the future of culture. The present educational task is to restore noesis and eidesis to their proper places (they have often been overdeveloped individualistically), and to emphasize thymosis as a spontaneous biological development arising from a deep emotional crisis.—M. E. Morse (Baltimore).

3942. Hildreth, G., & Keller, V. M. Results of an experience inventory in the high school. *Teach. Coll. Rec.*, 1937, 38, 581-592.—114 pupils in grades 7-11 were given during the regular English period a questionnaire of five items asking for their earliest memory, most exciting experience, greatest problem, greatest fear, and topic most frequently dreamed of. The results are tabulated. "The inventory proved of value in making analyses of individual cases."—J. M. Stalnaker (Princeton).

3943. Hildreth, G., & Martens, E. H. Selected references from the literature on exceptional children. *Elem. Sch. J.*, 1937, 37, 695-710.—Reported in ten categories and annotated briefly are 96 references.—P. A. Witky (Northwestern).

3944. Hohman, L. B. Problem child or problem habits. *Proc. Inst. Except. Child; Child Res. Clin.*, 1936, 3, 16-30.—The author is convinced that the psychology of the past and even of the present has regarded human behavior as excessively complicated and mysterious, and that this prejudice tends to make us place undue emphasis on hereditary and congenital dispositions and operates as a hindrance to the understanding and training of children. He feels that fortuitous conditioning explains much of behavior, that emotional patterns can be handled like other behavior patterns, and that children have sets of problem habits rather than problem person-

alities. Illustrative case material is included.—*M. Keller (Brown).*

3945. Horton, B. J. The truthfulness of boys and girls in public and private schools. *J. abnorm. soc. Psychol.*, 1937, 31, 398-405.—Students become more tactful in social relations and less regardful of truth as they progress through primary, secondary and higher education. Elementary pupils possess firmer inclinations toward veracity than older students, preferring to be bluntly truthful even when to do so means injuring the feelings of a dear friend. The older groups show more definite tendencies, which become stronger as age increases, toward diplomacy and tact in handling the truth. These general trends hold true for both public and private schools, although the students of private schools are more truthful than those in the public schools. In general, girls are more truthful than boys. The three most dominant urges for deceiving are: (1) the altruistic motive, (2) the reaction to our code of manners, (3) the egoistic motive.—*C. H. Johnson (Boston Psychopathic Hospital).*

3946. Hunt, W. A., Clarke, F. M., & Hunt, E. B. Studies of the startle pattern: IV. Infants. *J. Psychol.*, 1936, 2, 339-352.—"An investigation of the reactions of some 60 infants, ranging from 8 days to 18 months in age, to a sudden shot stimulus shows the Moro reflex present at the earliest ages. Around the age of 4 months the Moro disappears and is followed by the regular startle pattern typical of adults. Several possible interpretations of the relation of the Moro reflex to the startle pattern are presented and discussed."—*F. L. Reinwald (Brown).*

3947. Katz, D., & Katz, R. The child as a teacher. Investigations into the social psychology of the child. *Acta Psychol., Hague*, 1936, 2, 76-124.—Conversations between child-teachers and child-pupils were recorded verbally and thereafter analyzed with reference to the question of how children behave when teaching other children. The subjects of the experiment consisted of 13 children varying in age from 9 years 10 months to 15 years 4 months, who acted as teachers, and 14 child-pupils whose ages ranged from 5 years 7 months to 11 years 11 months. The instructional material consisted of items drawn from school subjects as well as from non-school sources. General consideration of the results shows that children vary as to their ability in teaching, some being born teachers. The subject to be taught, the pupil's personality, the age and experience of the child-teacher, and his attitude toward the pupil all condition successful teaching.—*K. U. Smith (Rochester).*

3948. Lazar, M. Reading interests, activities, and opportunities of bright, average, and dull children. *Teach. Coll. Contrib. Educ.*, 1937, No. 707. Pp. 127.—The reading habits of 2027 pupils from 13 schools, grades 4B-6A, were investigated. The pupils were classified as bright, average, or dull on

the basis of the Stanford-Binet. Environmental opportunities were found to correspond with the intelligence groupings. The number of available books and magazines in the home and the quality of newspapers read show significant correlations with the intelligence of the children. Girls were found to read more than boys. Sex differences in reading interests are noted. The educational implications of the study are discussed. The bibliography lists 77 titles.—*J. M. Stalnaker (Princeton).*

3949. Ledent, R., & Wellens, L. *Enfants difficiles.* (Problem children.) Liège: Vaillant-Carmann, 1935. Pp. 220.—The authors describe the work done in their laboratory of biometry. They stress the importance of physical and mental tests in discovering the abnormal child, in educating the problem child, in determining methods of treatment, and in professional orientation.—(Courtesy *Année psychol.*)

3950. Lurie, L. A. Conduct disorders of intellectually subnormal children. A study of correlations of intelligence levels of eighty to eighty-nine to behavior disorders of children. *Amer. J. Psychiat.*, 1937, 93, 1025-1038.—The object of this study was to determine the nature of the problems presented by the children who rated subnormal intellectually (IQ range 80 to 89) and the relationship between their behavior difficulties and the subnormal intelligence. Of the total group of 1000 cases in the Child Guidance Home, there was a greater percentage of subnormal than of definitely feeble-minded cases. About half of the 225 subnormal cases studied were referred for various forms of incorrigibility and delinquency. Failure in school was a frequent cause for referral; many of these cases received high ratings in standardized group tests. In 40 of the cases the intellectual subnormality alone was responsible for the behavior difficulty presented by the child.—*R. Goldman (Boston Psychopathic Hospital).*

3951. MacFarlane, J. W., Honzik, M. P., & Davis, M. H. Reputation differences among young school children. *J. educ. Psychol.*, 1937, 28, 161-175.—Reputation differences among children in the first three school grades were determined by a modified "Guess Who" questionnaire. Agreement of the children's judgments of each other was "fairly good" for approximately 82% of the children. Some sex differences in characteristics as revealed by reputations were noted. The relation between the teacher's opinion and the class opinion is represented by an average r of .42, with wide variation as a function of the trait considered. The correlation between children's self-estimates and class opinion is low, but is higher for uncomplimentary traits than for complimentary traits.—*A. W. Melton (Missouri).*

[See also abstracts 3575, 3619, 3623, 3719, 3721, 3735, 3740, 3747, 3752, 3756, 3759, 3774, 3836, 3878, 3911, 3919.]

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